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EDITED BY ANDREW WYNTER, M.D.

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Illustrations OF HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

BIRMINGHAM GENERAL HOSPITAL.

TWO CASES OF ACUTE RHEUMATISM, WITH PERICARDITIS AND ENDOCARDITIS RESPECTIVELY, AND DOUBLE PNEUMONIA.

Under the care of JAMES RUSSELL, M.D.

CASE I. (Clinical Clerk—Mr. T. H. Bartleet.) C. G., aged 24, married, a cooper, was admitted February 18th, 1859. A week before his admission, without any assignable cause, he was taken with shivering, and, on the following day, with rheumatic pain in his back and knees. In the course of the ensuing week, all his large joints became implicated in turn; the pain, however, being most severe in his knees and ankles, having left the knees more than once, but again returning to them. His urine was high coloured. During the last two days, he had a cough, and had spat a little "thick phlegm", of a dark brown colour. He had never had rhematism before. His parents had never suffered from rheumatism, so far as he was aware; but he thought that two of his sisters had been affected with that complaint.

On admission he was in a state of considerable depression; but the expression of his face was tranquil. Pulse 136; respirations 34. The tongue was covered with a thin brown fur. He had some oppression in breathing; there was complete absence of tenderness over the region of the heart, and no complaint of any pain in his chest. Effusion was present to a considerable extent in the right knee, in smaller quantity in the left. Both ankles also were swollen and puffy.

The cardiac dulness was extended, reaching above to the fourth rib, and on the right side to the left edge of the sternum. *Frémissement* was felt very distinctly over the region of the heart; and a very loud pericardial friction-sound, having a peculiar shrill creaking character, was audible, not only over the heart, but extensively over the upper region of the left chest, and faintly under both clavicles. Posteriorly, all the physical signs of consolidation of the lower part of the inferior lobe of both lungs were present; the dulness on the left side reaching to the inferior angle of the scapula, on the right not attaining that elevation by the distance of two inches. On the right side, the vocal resonance had a tremulous character, indicating the presence of some effusion into the sac of the pleura. In front, the chest was clear, and the respiratory sounds pure. A blister, four inches by five, was applied over the heart; he was directed to take ten grains of Dover's powder at night; and two grains of calomel with half a grain of opium every three hours. He was ordered to have two glasses of wine, milk, and beef-tea.

February 19th. He slept a little during the night. The pulse was steady, but very yielding; the respiration uniform. He lay on his back. He said his cough was troublesome, but during a prolonged visit he did not cough once: there was no expectoration. He had less pain in the joints. The tongue was white, brown in the centre. There was perspiration. The urine was copious. The bowels had been open once. The friction-sound had lost its creaking character. The dulness on the right side was advancing forwards into the lateral space. He was ordered to have four glasses of wine, to continue the calomel, and to take fifteen grains of Dover's powder every night.

February 20th. His aspect was satisfactory: he had less cough, and no expectoration. There was slight delirium and confusion. The pupils were rather contracted. He had profuse perspiration. The urine was copious. The bowels had not been open. *Frémissement* could not be felt. The friction-sound was loud and harsh. The cardiac dulness was somewhat lessened in extent. He was ordered to take, every three hours, two grains and a half of calomel and half a grain of opium; and a blister, six inches by five, was applied to the right side.

Feb. 21st. He had passed a bad night, and had slight delirium. Respiration was performed without labour, but he still complained of some oppression: he had less pain in the joints. The tongue was cleaner. He had passed two pints of urine in twenty-four hours. The bowels had been open once.

February 22nd. He complained of feeling very ill, though he was reported better by the nurse. He was emaciating considerably. The tongue was nearly clean. He had some oppression at the chest, but his respiration was free from labour. The cough was troublesome: no expectoration. His countenance was tranquil. He took nourishment. There was more effusion in the left knee, less in the right. He had profuse perspiration. The bowels were not open. He had passed two pints and a half of urine in the last twenty-four hours; a specimen from the total quantity was of deep brown colour, transparent, faintly acid, of specific gravity 1025; it gave a copious deposit of nitrate of urea on addition of nitric acid: it was free from albumen, and from any appearance of consequence, under the microscope. The dulness and bronchial breathing at the back of the chest had reached the spine of the scapula on both sides; in the supraspinous fossæ, respiration was pure and vesicular. There was slight ptyalism. The calomel was omitted; and he was ordered to continue the Dover's powder, to have five glasses of wine, and to take two grains and a half of pill of soap and opium every three hours.

February 24th. He was improving. The left elbow was very painful; the other joints were moved more freely. He had passed about a quart of urine, densely loaded with lithates. Perspiration continued. There was some increase in the effusion into the right pleural sac. The friction-sound over the heart was softer. A blister was applied to the left side, and he was ordered to take a grain of calomel and half a grain of opium every four hours.

February 25th. An additional glass of wine was prescribed, and the following mixture:—

℞ Quinæ disulphatis gra. ij; acidi sulphurici diluti ℥v; aquæ ʒi. M. Fiat haustus ter quotidie sumendus.

February 27th. The joints were nearly free. The urine amounted to two pints and a half in twenty-four hours; it was acid, of specific gravity 1026. He was ordered to omit the mercurial pills, and to take three grains of disulphate of quinine three times a day.

March 3rd. He looked quite alert, but did not sleep well. The joints were free, excepting the right knee. The cough still troubled him: he had some expectoration to-day, for the first time, of transparent mucus. The urine was densely loaded. The pericardial friction-sound was heard with difficulty, and the line of dulness in the posterior region of the chest was descending on the left side. He was taking four grains of quinine at a dose, and ten grains of compound soap pill each night.

March 5th. Not a trace of the friction-sound could be distinguished in the cardiac region (the sixteenth day after admission). Posteriorly, the physical signs had undergone no further change. The cough was irritative: he had some expectoration. He was ordered to have chicken.

March 10th. The heart's sounds were very feeble, especially the first: they were perfectly clear.

℞ Ætheris chlorici ʒ ij; ammoniæ sesquicarbonatis ℈ij; infusi quassiæ, aquæ menthæ piperitæ, āā ʒiv. M. Fiat mistura cujus sumat ʒi 4tâ quâque horâ.

March 12th. He was ordered to take two drachms of cod-liver oil three times a day.

March 15th. The inspiratory murmur on both sides of the chest, posteriorly, was partially vesicular; the expiratory remained bronchial. He got out of bed to-day without assistance.

March 22nd. The posterior region of the chest was resonant on percussion, excepting quite at the base. The respiratory sounds were vesicular, though on the right they retained a slight metallic pitch on deep breathing. His appetite was very good. He was much emaciated; and was ordered to have full diet.

March 25th. Vesicular respiration was restored posteriorly. Convalescence was established.

Table of Pulse and of Respirations.

	Pulse.	Resp.
February 18	136	34
„ 19	124	40
„ 20	122	32
„ 21	124	34
„ 22	116	27
„ 23	122	36
„ 24	122	38
„ 25	132	38
„ 26	132	32
„ 27	120	38
„ 28	124	36
March 1	130	30
„ 3	136	36
„ 5	136	34
„ 8	136	31
„ 10	132	28

Case II. (Clinical Clerk, Mr. E. Ryland.) A. T., aged 14, a servant, had been a girl of feeble health for some years, subject to cough and to pains in the side and head. She had always been dull since she had the measles. She had not menstruated. The present attack of acute rheumatism, which commenced about January 6th, was ascribed to cold caught in washing floors on her hands and knees. Her joints were swollen. She had never had rheumatism before. Her father's family had been subject to rheumatic gout, and a little brother was suffering at the time of her admission from rheumatic fever. During her illness, she had been treated with alkalies; a blister had been applied to the region of the heart; and she had taken pills of calomel and opium, which, however, were suspended, on account of the occurrence of diarrhœa, with much irritation in the bowels.

January 22nd. At this date, when she first came under Dr. Russell's care, she was very pale and feeble; considerably emaciated. She complained of general rheumatic pains, and lay on her back unable to alter her position. Her breathing was hurried, and accompanied by a slight irritative cough. Diarrhœa continued to occur at intervals, and the external muscles of her abdomen were highly irritable. There was exquisite muscular tenderness and irritability over the entire front of the chest, so that the gentlest percussion could hardly be endured. There was no extension of the cardiac dulness; the impulse of the heart was very feeble. A faint systolic bellows sound was heard at the apex of the heart, but was quite inaudible at the base. She was ordered to have two glasses of wine, beef-tea, milk, and two eggs, and to have an opiate enema.

January 24th. Her breathing was oppressed. She had cough, with scanty expectoration of tenacious uncoloured mucus. The physical signs of consolidation of the lower lobe of the left lung were present, except at the base, which remained comparatively clear. Rather small crepitation was heard over the right side posteriorly, and also over the front of the chest. A blister was applied to the left side.

℞ Tincturæ opii ♏xlv; potassæ bicarbonatis ʒiss; misturæ camphoræ ʒviij. M. Fiat mistura cujus sumatur ʒj 4tis horis.

She was ordered to take six grains of Dover's powder every night at bed-time.

January 26th. Yesterday, at the visit, she had just awoke from sleep, and was suffering much distress from constricted breathing, occasioned by spasmodic action of the muscles of respiration; this symptom, however, soon subsided. This day the expression of her face was satisfactory. Pulse 130; very feeble. The breathing was short, quick, and constricted. The tongue was chapped and irregular. She complained of pain, apparently muscular, over both sides of her chest. The cough was as before; the expectoration very scanty. There was consolidation of the lower lobe of the right lung; dulness was complete over the lower lobe of the left. A blister was applied to the right side.

January 29th. She had passed a good night. Pulse 128; very feeble. Respiration 26, but irregular and disturbed by irritative cough. The surface of the tongue was less irregular. Her voice was stronger. The countenance was satisfactory. Emaciation was considerable. The cough was much less. The pains had nearly left the joints. She had œdematous swelling of both feet, especially of the right. The irritability of the intercostal muscles was still considerable: the physical signs were unchanged.

February 1st. Pulse 132. Respiration 28; regular. The tongue was improving. She had more enjoyment of food, and was free from pain. She was ordered to take a grain of quinine daily, and eight grains of Dover's powder every night.

February 3rd. The nurse described the occurrence of fits of deficient memory and confusion of intellect, presenting themselves, with especial severity, after the patient had sat semierect. She had been very low and feeble, and at times quite incapable of expressing herself. She generally awoke from sleep in great discomfort, and at the visit this morning could scarcely speak from sobbing respiration; her pulse was exceedingly rapid. She was confused, and there was much difficulty in obtaining an answer from her. This uneasy condition subsided in a quarter of an hour. The abdomen was much diminished. There was very little cough. The physical signs were unchanged. She was ordered to have three glasses of wine daily.

February 5th. Pulse 132, very feeble and irritable. Respirations 34. She was in a remarkably dull torpid state, so that it was almost impossible to obtain an answer from her. Urine and fæces were passed under her, apparently from mere dulness. Nevertheless, she asked for food, put out her tongue when directed, and was obedient to directions. There was no delirium. Her sleep was uncertain, sometimes tranquil, sometimes uneasy. The appetite was good; the tongue quite natural; the cough was nearly gone. She had no expectoration. The sounds of the heart were very feeble. The dulness in the posterior regions of the chest was less decided; and some vesicular breathing was audible, with a little crepitation. She was ordered to have mutton, and four glasses of wine.

February 8th. The general symptoms were improving. She was more alert, though her urine was still passed into the bed; and the last stool, on the 6th, was voided in a similar manner. The natural resonance was almost restored posteriorly on the right side, and to a considerable extent on the left side also. Vesicular breathing was audible on both sides behind; coarse on the left, with sibilus. In front, respiration was nearly pure.

February 10th. Urine was still passed in bed; her mother informed us that she was apt to commit this indiscretion even when in health.

February 15th. Pulse 112; respiration irregular from sobbing. She was perfectly sensible to the calls of nature, and was much more intelligent. The bellows-sound at the apex of the heart was sharp and shrill, and was audible in the posterior region. Loud vesicular breathing was heard over both sides behind. She was ordered to have two glasses of wine; and to take two grains of quinine three times a day, and five grains of Dover's powder every night.

February 26th. Convalescence was established; the œdema had disappeared for some days.

Remarks. These cases afford a good illustration of the obscurity which often attends the general symptoms of asthenic pneumonia when occurring in the course of other disease. In the former case especially, there was complete absence of pain in the chest and of expectoration; the cough, although mentioned by the patient, was scarcely ever heard at the visit; and the breathing, though hurried, was attended with only slight oppression. The pain in the chest, in the second case, was evidently connected with rheumatism of the intercostal muscles, which, on many occasions, gave rise to much distress; the cough was rather more prominent; and, though expectoration was present, the sputa were uncoloured, and in very small quantity.

The cases also demonstrate in how important a degree the danger of pneumonia is derived from the circumstances under which it occurs; in both these patients, although the entire inferior lobe of each lung was involved, there were no symptoms which gave rise to special anxiety; and this, although in both the heart was implicated. In the man, the small amount of fluid effusion within the pericardium (if, indeed, any were present), was no doubt a very important element in explaining the absence of serious depression.

The symptoms of cerebral disorder which manifested themselves in the girl during the later period of her case, were doubtless due to exhaustion of her nervous power.

TABLE OF CASES OF DIPHTHERIA.

We commence to-day our promised tabular report upon the subject of diphtheria. The present report includes only cases which have occurred in London, and principally those which have been under observation at London hospitals; and the list, short as it is, comprises almost every case which, up to this time, has been admitted into any of our large hospitals. Thus it will be seen that the disease has assumed only a sporadic character in London; for, if any formidable epidemic had visited the metropolis, it would be impossible that, after more than a year's prevalence, no case should have been brought into St. Bartholomew's, King's College, Guy's, the London, and Westminster Hospitals; while several other large hospitals only confess to straggling, and some of them doubtful cases. We shall abstain from any attempt to sum up the results of our inquiry until we have laid before our readers all the materials which we have been able to collect. At present, we will merely observe, that the evidently sporadic character of the disease in London has prevented the reporters from taking down particulars of the meteorological conditions under which it occurred; and that, therefore, the third column in our table remains vacant. We have, however, noted there the date of occurrence of each case, in order that any of our readers who think it worth while may have the opportunity of comparing it with the statement of the weather in London published under the authority of the Registrar-General. For ourselves, we have not thought that any satisfactory conclusion could be thus obtained, and have therefore not troubled our readers with anything on that head.

While we have to acknowledge, with many thanks, the receipt of several interesting reports from our country associates, we cannot help believing that much information might be collected from others who have lived in districts where the disease has prevailed epidemically. We would therefore earnestly request gentlemen who are in possession of any data on the subject, whether tabulated or no, to aid us in making the present inquiry as perfect as possible.

1. Age and Sex.	2. Hygienic conditions; occupation, food and clothing, purity or impurity of air.	3. Meteorological conditions, date, etc.	4. Presence or absence of contagion.	5. Scarlatina.	6. Appearances and symptoms when first seen.	7. Time and situation of the leathery membrane.	8. Fungus.	9. Any affection of viscera (albuminuria, etc.)	10. Treatment and progress.	11. Indication and success of Tracheotomy.	12. Duration and event.	13. Post mortem appearances.	Remarks.
1. F. 11	Child of rich parents. Stinking cistern at top of house	June 1858.	No contagion.	....	Dysphagia. No constitutional disturbance. Small white speck on tonsil.	The white speck on tonsil gradually spread, and was removed by the forceps. No breach of surface. Large pieces vomited up in coughing.	No (microscope).	No.	Dysphagia not great. Dyspnœa gradually increased till 11th day, when tracheotomy was performed. Large spots of purpura showed themselves on 10th day	For dyspnœa, marked relief. Went on well for two days, then suddenly attacked with fatal syncope.	Died of syncope, 13th day.	No post mortem examination.	It was conjectured that a clot had formed & had become detached, stopping up some large vessel. E. Barker, Esq.
2. F. 2	Had been ill for a fortnight, loss of appetite, etc.	Jan. 17, 1859.	Resided in same house with a child who died of *false croup (?)*	....	Dysphagia. Swelling on left side of neck. Dusky redness of fauces.	Grey membrane on tonsils when first seen.	....	No.	Emetic. Steel. Nitrate of silver ($\frac{1}{4}$ dr. to the oz.) to the throat. Wine 6 ozs. a day. Improved rapidly.	No.	Recovered 10 days	....	St. George's: Jane White.
3. F. 19	History unknown.	Dec. 19, 1858. Weather moist, & very mild	....	Unknown	Dyspnœa. Tongue specked with depressed white spots.	Uvula and epiglottis when first seen.	No. Some bodies, at first taken for fungi, proved to be fatty acids (Dr. Harley).	Bronchitis. No albuminuria.	Nitrate of silver to throat, and stimulants. Dyspnœa rapidly increasing.	For dyspnœa.	Died of asphyxia, 2 days.	Bronchitis, hydatids of liver, exudation extended some distance down the œsophagus.	University College: Deborah Woolger.
4. M. 33	Railway porter.	April 4, 1858.	....	....	Dysphagia. Swelling in the throat.	Two days after commencem. of attack. Appeared first on uvula.	....	No.	Nitrate of silver locally. Chlorate of potash in 4-grain doses every 2 hours.	....	Recovered, 10 days	....	Symptoms very slight. University College: Thos. Cox. Dr. Jenner
5. F. 20	Servant, had lived in a damp house and was rheumatic.	March 19, 1858.	Had been waiting on a patient said to have had diphtheria.	Had had scarlatina.	Rigors; headache; pain in the throat.	False membrane seen three days after she was first known to be ill; above and behind the tonsils.	....	No.	Equal parts of strong hydrochloric acid & water locally. Chlorate of potash internally. The diphtheritic symptoms soon disappeared	....	Recovered rapidly from Diphtheria; but had rheumatic fever afterwards.	....	University College: Ann Reynolds. Dr. Jenner.
6. M. 17	A consumptive boy.	Feb. 14, 1858.	No contagion.	....	Dysphagia, dyspnœa, swelling about the jaws two days before admission.	False membrane over pharynx, uvula, and epiglottis.	....	No, except phthisis.	He was admitted in a dying state with low delirium, etc., and sank rapidly.	....	Died 3rd day of illness.	Abscess in tonsils, extensive false membrane, phthisis.	University College: H. Morris. Dr. Jenner

1. Age and Sex.	2. Hygienic conditions; occupation, food or clothing, purity, or impurity of air.	3. Meteorological conditions, date, etc.	4. Presence or absence of contagion.	5. Scarlatina.	6. Appearances and symptoms when first seen.	7. Time and situation of the leathery membrane.	8. Fungus.	9. Any affection of viscera (albuminuria, etc.)	10. Treatment and progress.	11. Indication and success of Tracheotomy.	12. Duration and event.	13. Post-mortem appearances.	Remarks.
7. M. 22	....	March 2, 1858.	....	....	Feverishness & dysphagia 4 days before admission.	Patches on posterior wall of pharynx and tonsils.	....	No.	Fauces sponged out with a solution of nitrate of silver (a dr. to the oz.) and chlorate of potash given. Anomalous eruption appeared in course of complaint.	....	Recovered, 10 days	....	University College: Charles Savory. Dr. Jenner.
8. F. 22	....	Nov. 29, 1858.	No contagion.	No scarlatina in the neighbourhood	Dysphagia. Slight dyspnœa.	False membrane on tonsils and uvula.	....	No.	Solution of caustic (30 grs. to oz.) locally. Liq. ammon. acet. with nitre, afterwards stimulants.	....	Recovered, rapidly	....	University College: Dora Hunt. Dr. Walshe.
9. F. 22	Had been much exposed to cold and fatigue, & was recovering from other illness.	Nov. 2, 1858.	None.	Had had scarlatina four years before.	Rigors, sweating, then sore throat & dysphagia; four days.	On uvula & back of pharynx.	....	Bronchitis.	Sesquichloride of iron every 2 hrs. hydrochloric acid & water locally, good diet & wine.	....	Rapid recovery.	....	University College: Ann Costello. Dr. Parkes.
10. M. 24	In hospital for excision of the knee, weak from secondary hæmorrhage.	Aug. 4, 1858.	None.	....	Tenderness of mouth, and dysphagia.	First appeared on roof of mouth.	Fungi found in membrane examined after death resembling penicillium glaucum.	....	Stimuli, dilute hydrochl. acid. Membrane receded & he improved for 3 d. Then a relapse occurred	....	Died 5 d. after appearance of membrane.	Pneumonia grey hepatisation. Fauces, back of tongue, pharynx, & upper part of œsophagus coated with leathery membrane. Large abscess in situation of knee.	St. Mary's: Charles Gilks. Mr. Ure.
11 M. 20 (about)	....	About Jan. 7th, 1859.	....	....	Leathery membrane when first seen. No constitutional symptoms noted.	Ash grey membrane over left tonsil, uvula, and part of soft palate.	....	....	Nitrate of silver locally, chlorate of potash and dilute hydrochloric acid internally.	....	Recovered.	....	O. P. Charing Cross Hospital: Dr. Willshire.
12. M. 34	Porter.	April 6, 1858.	None.	....	Had been ill a week. Dysphagia; pectoral symptoms.	Time of appearance unknown. Numerous white patches on fauces.	....	Pneumonia. No albuminuria.	Solution of nitrate of silver locally, sesquichloride of iron and wine internally.	....	Recovered, 19days.	....	Middlesex Hospital: Rd. Fone. Dr. Stewart.
13. M. 27	Footman.	Aug. 31, 1858.	....	....	Had been ill for 8 days, with pains in back, belly, & limbs, and loss of appetite.	Diphtheritic membrane noticed on Sept. 6, on soft palate, uvula, and tonsils.	No. The membrane consisted at first of granular epithelium, soon giving place to corpuscular fibrine.	No. Arms and legs covered with a rash of red blotches.	Hydrochloric acid locally, chlorate of potash & bark internally, stimulants and generous diet.	....	Died 6 days after appearance of leathery membrane.	No post mortem examination.	St. Mary's Hospital: Andrew Ware. Dr. Sieveking
14 F. 5½	....	Feb. 2, 1859.	Had been playing with a child said to have died of diphtheria.	Believed not to have had scarlatina.	Ailing a week. Pain in throat 2 days, principally referred to larynx; fauces covered with greyish patches of false membrane.	On admission, covering fauces.	....	No.	Liq. sodæ chlor. locally, tincture of sesquichloride of iron and wine internally.	....	Recovered, 28days.	....	S. George's Hospital: Caroline Wright. Dr. Pitman.

[*To be continued.*]

Original Communications.

REMARKS ON THE USES OF BLEEDING IN DISEASES.

By W. O. Markham, M.D., F.R.C.P., Physician to St. Mary's Hospital, and Lecturer on Physiology and Pathology at the St. Mary's Hospital School.

[*Read at the Royal Medical and Chirurgical Society of London, November 23rd*, 1858.]

[*Concluded from page* 287.]

The explanation of the mode of action of the venesection here given, may not be easy, but this forms no grounds for the rejection of it in such conditions of disease, provided the facts here stated be correct, and the inferences rightly drawn from them. If, indeed, these facts, viz., the congested heart and its relief by venesection in such cases, be admitted as results of experience truly interpreted, we may accept their practical deduction, without waiting for a satisfactory theoretical explanation of them. Neither is it necessary for me to observe, that there are congestions of the heart, and periods in the course of all congestions, in which no relief can be hoped for from venesection. Nor need I stop to say a word as to the amount of blood to be taken in any given case; for it must necessarily be different in every case, varying with the nature of disease and the constitution of the patient.

I will, however, to prevent any possible misconception on this head, refer shortly to what, as I conceive, are the particular indications for its use in certain cases of pneumonia, and will also point out the special reasons, peculiar to this inflammation, which render venesection in the great majority of cases of pneumonia inapplicable, notwithstanding the existence of that condition of the heart, for which, as here supposed, venesection is of service. The chief special fact, which gives to venesection in pneumonia a vastly different significance from what it possesses in most other inflammations, has been too much overlooked in this modern and recent blood-letting controversy. The lungs, we must remember, are the prime sanguificating organs of the body. Unless the materials which supply blood are duly subjected to the aerating process, they cannot become serviceable for the purposes of nutrition. The new materials added to the circulation cannot become *blood* unless subjected to this process.

But this blood making process is necessarily arrested, and in proportion to the extent of the pneumonia, that is to say, in so far as the function of the lungs is hindered by the inflammation; and it is arrested so long as the inflammatory process lasts. Loss of blood, therefore, in relation to the extent and duration of the inflammation is, under such circumstances, an irreparable loss.

Now, it is evident, that the greater the extent of the inflammation, the greater must be the congestion of the heart, and consequently, according to the principles here laid down for bleeding, the more desirable should be the practice of venesection in such cases. But now comes in the special fact referred to, which contraindicates the practice; and which tells us, that any temporary benefit thereby gained, will not compensate for the more permanent injury inflicted on the vital powers. And thus it happens, that the more extensive the inflammation, and the more urgent the symptoms, the greater is the danger of the venesection; in fact, just in proportion as the bleeding is more required to relieve the heart, is the practice of it less applicable.

When the pneumonia is limited, the symptoms usually are not such as to require venesection; and it is a fact, that in such limited cases of pneumonia venesection neither is nor ever was practised, even in former times; though, if there really be any potential virtue in bleeding over inflammations, the practice seems as much called for in *limited*, as in more extensive inflammations of the lungs; and for this plain reason, that the possible destruction of even a very small portion of one of these organs is full of danger to life.

There is also another fact which must be considered in reference to bleeding in pneumonia. The condition of the lungs which produces the congestion of the heart is not removed by the bleeding; it remains still in active force *after* the bleeding. The remedy, therefore, can only give very fleeting relief; and we have already seen the irreparable loss which large bleedings entail upon the patient. Bleeding here acts the part of the usurer to the prodigal spendthrift. For a small present accommodation, a large draught is thereby made on the strength of the future estate.

What, then, are the conditions of pneumonia, in which venesection is applicable? I think they are well typified in the case related above; and I would answer the question as follows: Venesection is of service when the general symptoms have risen rapidly and are severe, and the inflammation is limited; when the urgency of the symptoms are, so to say, and in reference to ordinary cases, out of proportion to the extent of the inflammation, as measured by stethoscopy, whenever the symptoms, in a word, are severe, and the stethoscope shows that the aerating processes are not extensively and seriously compromised.

I have already referred to the distinction which must be drawn between venesection and the local abstraction of blood; and, without attempting any theoretical explanation of the fact, I have taken it as undeniably true, that the local abstraction of blood from an inflamed part is of service in reducing the most prominent signs of the inflammation, the pain, the heat, the redness, and the swelling. And I would now inquire whether this fact, observed in the case of *external inflammations*, may not be legitimately applied to the case of *internal inflammations*; just as we have argued of the effects of *venesection* over *internal inflammations* from what we observe of its effects in *external inflammations*? If so, then it should follow, that the local abstraction of blood in internal inflammations will only be of service over those inflammations, in which anatomy teaches us that there is a direct vascular connexion between the internal part inflamed and the part from whence the blood is taken. Now, I think, the experience of every physician shows, that leeches and cupping, when used in internal inflammations, are not nearly so often followed by satisfactory consequences as they are in the case of external inflammations; and that, in fact, they not unfrequently fail to give the relief anticipated from them. May we not seek for the explanation of this in the anatomical relations of the part inflamed to the part from whence the blood is removed? The applying of leeches to the thorax in pneumonia is a common practice enough; but it is evident that leeches cannot draw blood directly from the inflamed lung, and that they cannot therefore act upon the pneumonia? How is it, then, that they so often give relief in pneumonia? Their beneficial effects may very reasonably be ascribed to the direct influence which they exercise over the pleuritis, which so invariably accompanies pneumonia. It is to the inflammation of the parietal pleura that the pain, which is thus relieved, must be ascribed; and between this layer of the pleura and the skin over the thorax there is a distinct vascular connection—the vessels which supply the one being in great part the vessels which supply the other.

Leeching, again, over the precordial region is not unfrequently practised in endocardial inflammation; but it is certain that not one drop of blood can be thereby removed from the endocardium; and surely experience—I mean that large and general agreement in opinion, which alone gives value to a remedy—does not justify the practice. But experience shows us that local abstraction of blood is very often of great service in pericarditis—the very frequent associate of endocarditis be it remembered. How is this to be explained? Local pleurisy—*i.e.*, inflammation of the pleura around the pericardium—almost always accompanies severe inflammation of the pericardium, and is not improbably, in most cases, the cause of the local pain.* The absence of local pain, which is, indeed, common enough in pericarditis, may be very reasonably explained by the absence of pleurisy. But when the pleurisy and the pain exist, we have a ready explanation of the mode of relief in the direct vascular connection above referred to—between the skin and the pleura. And it is also well worthy of note, that there is a direct vascular connection between the branches of the internal mammary, which in part supplies the skin over the precordial region, and also sends a branch to the pericardium.

No one, again, can doubt of the great ease often given by leeches applied over the abdomen in peritonitis; and here we have an explanation of the fact in the direct vascular connexion between the skin and the parietal layer of the peritoneum. Leeches, again, are of undoubted benefit in laryngitis; but ap-

* I do not, of course, allude to that oppressive stifling pain, which is the consequence of the disordered action of the heart, resulting from the effects of the inflammation upon its muscular structures.

plied over the thorax in bronchitis, they are of no avail, and for a similar reason.

As every one's experience must have taught him, leeching and cupping over the liver in painful affections of this organ are very often unsatisfactory in their results; but sometimes they give relief; and when they do, may not the cause be ascribed to their influence over the parietal layer of the inflamed peritoneum over the liver. The adhesions between the anterior and upper surface of the liver and the abdominal walls and diaphragm, so often met with in the dead house, are proofs of the not unfrequent occurrence of such peritoneal inflammation, excited by the deranged condition of the liver.

Facts of this kind, and I need not multiply them, seem to me to point out to us the internal inflammations in which we may anticipate that direct bleeding will be of service; and also to explain why it so often fails to answer the objects anticipated from it in the cure of internal diseases. I am aware that I shall be told in answer to this, that, nevertheless, relief is very frequently found in practice to follow the abstraction of blood from the skin in cases of internal diseases, in which there is no vascular connexion between the skin and the internal part; and that a striking proof of this may be observed, for instance, in the case of cupping over the loins in affections of the kidneys. But I would ask, in the first place, whether the practice does not frequently fail to give relief; and, secondly, whether it is certain that the relief, when obtained, may not be often very fairly attributed rather to the rest and other remedies, always, and in most cases of necessity, coincidentally enjoined with the cupping. Are the cupping and the subsequent relief truly cause and effect in every case, or merely antecedent and sequence? This much is undoubtedly true, that the pain in question and the kidney affection are very frequently relieved without any such local appliance, and solely by the use of those most powerful of remedies in these diseases—rest and warmth. Nevertheless, I do believe, that cupping does sometimes, in diseases of the kidney, give local ease, though I could never satisfy myself that the loss of blood had an undoubtedly direct influence over the progress of the kidney disease. I account for the relief to the pain thus given by the leeches or cupping in this way: Inflamed organs very frequently excite diseased actions in the parts around them; abundant proofs of this we have in the adhesions attending pericarditis, hepatitis, and pneumonia. It is, as I believe, to this irritated condition of the tissues around the kidneys, secondarily excited, that the loss of blood gives relief. To suppose that one drop of blood can be thus directly taken from those organs, is of course an entire, though, perhaps, not uncommon, delusion. The proof that the diseased condition of the kidney does excite changes in the parts immediately around the organ, is often in the hands of the pathologist; he not unfrequently finds the cellular tissue around the kidney firmly adherent to its capsule, and united to it by unnatural attachments.

I shall, perhaps, be also told that this explanation of the effects of blood-letting is of too mechanical a kind; and that it takes no account of that nervous element with its many inscrutable mysteries, which necessarily takes part in the operation. I may be told that dry cupping relieves bronchitis and renal congestions; that leeching at the epigastrium and abdomen relieves gastrodynia and intestinal pains, that blisters on the calves of the legs relieve cerebral disorders, etc., and I will anticipate the objection by saying, that if such results do occasionally really follow as consequences of such antecedents, the truth of the main facts which I insist on are in no way invalidated. That irritation of the skin may act in a reflex way upon internal organs, is a fact beyond dispute; and that it may influence the circulation of the blood in internal organs through the medium of the vaso-motor nerves, is very possible; but the influence of such irritation over the circulation of internal organs in disease, has as yet to be demonstrated.

I have said nothing here of the change of type theory of disease, as explanatory of the modern views concerning venesection. Because the subject would lead to a wide discussion; and because, if the views here sustained are correct, we have in them a sufficient explanation of the change in practice, without being forced to call in such an intervening deity to solve the difficulty. According to these views, venesection, rightly used, must have been of service in those other days, just as it is of service in these present days; it was not more requisite, then, in the cure of certain diseases, than it is now. The theories which men held of the nature of disease in the so-called sthenic times of inflammation led them, logically, to abuse the excellent remedy; and the injuries and mischiefs which followed upon such abuse, not noted clearly by them, but distinctly revealed to us by the light of modern pathology and physiology, and by the touchstone of modern clinical observation, have led us, in late years, unduly to depreciate its value.

The views which I have taken the liberty of thus laying before the society, have necessarily been given in an incomplete form, for it would have been too much taxing the attention of the fellows to have attempted their full illustration. I cannot, however, help adding that this view of the mode of action of venesection is in entire accordance with the modern practice of administering stimuli in certain stages of inflammation, and that it explains away what has been denounced as an unseemly anomaly, viz., the simultaneous abstraction of blood and administration of alcoholic stimuli. The conclusions arrived at, summed up in a few words, are as follows:—

1. Venesection has no *directly* beneficial influence over the course of inflammations, either external or internal.

2. But venesection is at times of great service, *indirectly*, in the course of certain internal inflammations, and in the course of certain internal chronic diseases, and of all disorders which occasion congestion and oppression of the heart.

3. The use of the venesection is in all cases alike. It acts by relieving the cardiac oppression; it neither arrests nor modifies beneficially inflammation.

4. There is a marked distinction to be drawn between the effects of bleeding in inflammation, and the local abstraction of blood from the inflamed part. Local abstraction of blood materially influences the inflammation, reducing the most characteristic of its phenomena. But local abstraction of blood can only modify, in this way, the inflammation of internal parts, when there is a direct vascular connexion between the part inflamed, and the part from whence the blood is taken.

5. It is not denied, that local irritation of an external part, where there is no direct vascular communication between the skin and the inflamed part, may influence an internal inflammation, by reflex action conveyed thence from the skin through the vaso-motor nerves of the inflamed part.

CASES OF NERVE-DISORDER.

By C. Handfield Jones, M.B., F.R.S., Physician to St. Mary's Hospital.

Series III.

My intention in publishing the following series of cases is chiefly to adduce evidence in support of the view that nervous tissue, either dynamic or conducting, may be so enfeebled by some obscure influence as to be disabled from performing its function; that, in fact, paralysis or paresis may thus occur without any discernible structural lesion. This view is received and acted upon by many intelligent practitioners, who well know the difference between "anæmic" paralysis and that resulting from organic lesion; but it is not distinctly recognised by our teachers and lecturers, except as one of the freaks of hysteria. Yet, to judge from my own experience, the state in question is by no means rare; at least, in minor degrees. As far as the evidence we at present possess extends, the view above enunciated seems quite undeniable. Dr. Abercrombie's cases of "simple apoplexy" prove it almost conclusively; and I can hardly imagine that microscopic examination would add much to their authority. It is the fashion, I know, with many, to call all cases of disordered nervous action, which are not referrible to structural change or to familiar causes, *hysterical*—a term which is meant to imply at least a certain amount of mental cooperation in the production of the symptoms. To this coarse, careless practice, I beg to take the strongest exception. I affirm, with the fullest conviction, that the sufferer from nerve-debility, or paresis, may have a far better regulated and stronger mind than he who pronounces with so much levity on the nature of the malady he is asked to relieve. Let the strong unbroken man be exposed to the depressing influence of a long series of enfeebling unwholesome occupations, intensified by mental anxiety and unrelieved by relaxation, or to malarious emanations, or any like cause, and it will soon be seen whether he will think hysterical either a sufficient or just description of his *disease*.

The nervous system in the present day is certainly hard worked; and can it be matter of wonder if it often give way, and express its fatigue by actual failure of functional power? I do not, of course, doubt the existence in many cases of defective volition or disordered imagination; I do not wish to erase from our nomenclature the term "hysterical paralysis"; but I

do wish to introduce one which shall express such conditions as result from purely physical disorder, the will still bearing up against the depression. The appellation of *Neurolysis* appears to me a convenient one, or *Neurotaraxis* where the phenomena are more significant of irritation than of simple exhaustion.

The causes producing the enfeeblement of the nervous tissue may doubtless be various, and it will very much depend on the previous state of the system whether they prove effective or not. Damp cold seems to have been the exciting cause in Case II, influenza in Case I, malaria in Case XI, Series I (Association Medical Journal, 1858). Professor Trousseau believes the poison of diphtheria, by its general action on the system and on the blood, to give rise to the paralysis which is often observed as a sequel of the disease.

The diagnosis of functional paralysis must often be very uncertain, and a cautious tentative proceeding may be the only means of deciding. Further experience is requisite to enable one to lay down general rules. However, the absence of pain and tenderness in the head or spine, of signs of central irritation, and of disorder of the intellect; wasting of the muscles; and previous general debility, with exposure to enfeebling causes,—would be evidence in favour of the existence of functional paralysis rather than organic. Reflex movements are not usual, I think, in neurolysis; but they occurred in Case IV.

In dealing with functional paralysis, it is of great importance to commence treatment early. In conjunction with appropriate tonics, the local application of an interrupted galvanic current to the muscles has appeared to me far the best means of restoring their power. This recommendation of early treatment coincides with that given by Dr. West in his lecture on *Infantile Paralysis*—an affection, I apprehend, often identical with the one we are considering.

Case I. W. D., aged 26, male, was admitted into St. Mary's Hospital on September 10th, 1858. He was ill one month with an inflamed sore-throat, which has got quite well; but since then he has begun to lose the use of his limbs, the legs being weakest. He can now stand, but not walk; the legs are very numb and cold, but he is conscious when they are touched. He has no pain at all. The intellect is clear. No reflex actions are excited on tickling the feet. The pupils are large, and scarcely act at all. The skin is cool; the pulse natural; the tongue white; he has no cough; the sphincters act. The heart-sounds are natural. He has never had syphilis. He lives in a damp locality. He can lift up his legs in bed. Being unable to find any indication of organic disease of the nervous centres, I determined to try the effect of nervine tonics, and prescribed the following.

℞ Strychniæ gr. 1-20; quinæ disulphatis grn. ij; acidi sulphurici diluti ♏viii; aquæ ℥i. M. Fiat haustus ter die sumendus.

Ordinary diet and porter were ordered.

September 14th. He feels much better, has more use of his legs and hands, and can walk a little. The bowels are open.

September 17th. He has been worse since September 15th. To-day he has sore-throat, and much diarrhœa, with copious perspirations. His appetite is lost. He has "no use of the hands or legs again". The medicine was repeated, eight minims of tincture of opium being added to each dose.

September 18th. His tongue is very much furred, yellowish; pulse 120, full and weak. He has been purged three times this morning. There is no pain anywhere. He feels very sick, and has a bad headache; the skin is hot and moist. He cannot raise or turn himself in bed. The medicine was ordered to be taken four times a day; and six ounces of port wine were given.

September 20th. He complains of bad cough. Pulse 96, full, occasionally intermittent. The bowels are quiet. Two grains of disulphate of quinine were added to each dose of the medicine.

September 21st. He has had no sleep, from cough. The pulse is natural, 88. The sputa are of rusty colour, but watery. The tongue in the morning was dry, and brown in the centre; at 2 P.M., moist, and coated in the middle.

September 22nd. He feels much better; his appetite is improving. The bowels have not been open for two days. The tongue is cleaner. He has no use of his limbs.

September 24th. He has no use of the hands: they feel numb, but are sensitive if touched. He can sit up in bed better. The tongue is clean. Galvanism was ordered.

September 25th. Galvanism was applied yesterday with great benefit: he is able to move his hands and arms much better. His appetite is very good: he sleeps well.

October 4th. The legs are now more weak and numb than the thighs. A much stronger current is necessary to excite the leg-muscles than those of the thigh. The calf-muscles are greatly wasted. The feet used to be very cold and numb, but are not so now. The hands feel weak, and are rather numb; he has a sensation of "pins and needles" in them at times.

℞ Strychniæ gr. 1-16; tincturæ ferri sesquichloridi ♏xv; acidi hydrochlorici ♏ij; aquæ ℥ss. M. Fiat haustus ter die sumendus.

October 8th. Great benefit has resulted from the galvanism, and he can now walk and feed himself. He cannot bear so strong a current as before.

The same treatment was continued till the end of November, when he was discharged, with only some degree of weakness remaining in the legs, which was referred to the knees. It seemed that the extensor muscles of the thighs had not regained their full power: he was able, however, to walk very well, and his arms had become quite strong. The dose of strychnia was gradually increased to one-ninth of a grain three times a day. A curious circumstance observed by himself was, that his feet swelled during the night, so that he could not get his boots on in the morning; but, after walking about the ward a little, the swelling subsided. His urine was free from albumen, and was otherwise healthy, except that, on one occasion when he had catarrh, it deposited a good deal of uric acid.

Remarks. It seems to me impossible to regard the paralysis occurring in this man in any other light than as a functional disorder. Whatever change may have actually taken place in the grey matter, or in the nerve-tubes, it surely was not one of irremediable lesion. No softening, or extravasation of blood, or even inflammation, can, I think, have occasioned the symptoms. The paralysis, after a brief amendment, recurred, and became greatly worse under our inspection. This relapse was attended with all the marks of great general debility and prostration. A passive flux took place from the skin and the pulmonary membrane. Under a sustaining treatment he passed through this state, and began to recover power. In promoting the return of muscular strength and voluntary power, the galvanic stimulus was of the greatest use. It seems to me most reasonable from all this to regard the paralysis as the result of simple debility of the nervous tissue, probably of the spinal grey matter. The brain seems to have been unaffected; there was no giddiness or impairment of intellect, or of the special senses. The cord must have been enfeebled in a considerable extent, at least as high up as the origin of the brachial nerves. Sensation and motion were both impaired, the latter most. The arms recovered much sooner than the legs, contrary to what usually occurs in cerebral palsy. The swelling of the feet during the night is to be ascribed, I believe, to weakness of the vaso-motor nerves, aided by the relaxing warmth of the bed, causing undue dilatation of the arteries, and some subcutaneous effusion. This occurrence of nerve-debility during sleep is often observed, and accounts for such phenomena as the more frequent happening of epileptic paroxysms, hooping-cough, and asthmatic attacks, as well as diarrhœal, choleraic, and malarial seizures, during the night. The case may briefly be entitled as an extreme instance of the usual debility of influenza.

Case II. J. Edwards, aged 30, young looking, was admitted October 11th, 1858, under Dr. Sibson. Four months ago, he was in wet grass all the morning. His legs became stiff the next morning, and his knees weak; he felt as if he were standing on pins. The arms also became affected, but only numb. Subsequently, his masticating powers and his voice became impaired; he had double vision for about a month, and afterwards singing noises in his ears. On admission, he was observed to lift the jaw with his hand in speaking, and to shoot out his tongue involuntarily. He cannot raise his arms about his head when he lies down. He walks slowly, lifting his feet. When he gets on his bed, he does it in a series of jerks, and and then falls flat. Both hands are sensitive. The pupils act. He has vomiting. Pulse 64; respiration 32.

October 14th. He complains of pain at the back of the head, and of the arms being more powerless. He cannot open and shut his mouth without the help of his hand, when lying in bed. The power of deglutition is impaired. Memory is perfect.

October 17th. When his wife came into the ward, he went to meet her, pointed to his throat, and nearly fainted. He be-

came excessively pallid; his skin was hot, and covered with sweat. Pulse 120. Soon afterwards, he sank and died. He had taken iron and quinine, and improved somewhat for a time.

Post Mortem Examination. The body was spare, of medium height. The thymus gland was enlarged; it weighed 537 grains. The heart was full of fluid blood, and healthy. The lungs were healthy. The liver, kidneys, and spleen, were immensely congested, but firm, and quite normal in appearance. The stomach was almost empty. The intestines were empty and contracted. The superficial vessels of the brain were slightly congested. The brain substance was firm; the grey matter was darker than usual; the vascular points were more numerous and evident. The lateral ventricles contained a little serum. The choroid plexuses were rather congested. Nothing abnormal was found in the brain; all the parts were very carefully examined. The spinal cord appeared to be firmer than usual in the part corresponding to the lower dorsal and upper lumbar regions; the upper part was much softer than this, but sections of both these portions revealed nothing unnatural in appearance or worthy of remark. Mr. Gascoyne, who conducted the autopsy, informs me that he considered the softening as a *post mortem* change. Dr. Sibson and I carefully examined portions of the spinal cord and pons Varolii the next day under the microscope, but we could discover no organic morbid change; there was no alteration of the coats of the minute vessels, nor glomeruli. The kidneys were also examined microscopically, and found healthy.

Remarks. In this case, the nerve-disorder was diffuse, but incomplete; it seemed to affect all parts of the cord and the medulla oblongata, but did not cause any actual paralysis till the last. Even the centres of vision seem to have been temporarily disordered. The fatal event probably resulted from arrest of the heart's action, induced through the vagi. The impairment of masticating power shows that the seat of origin of the fifth pair was involved in the paralysing morbid action; and, from the proximity of that of the vagi, it cannot be matter of surprise that the latter nerves should come to suffer also. As to the existence of any organic alteration, the negative evidence to my own mind appears satisfactory, but I do not expect it may be fully so to all. At the least, however, the case seems well worth recording, if only as adding something to the probability of the existence of central dynamic changes, which may induce the gravest peril, without leaving their record in any organic alteration. (I wish to acknowledge gratefully the kindness of Dr. Sibson in allowing me to make use of this case.)

Case III. J. C., aged 30, male, was admitted December 27th, 1858. He had been ill two days. He went to sleep on the 25th for one hour, and, on waking up, found he had no use of the left hand. He is not aware that he had pressed his arm in any way while lying asleep. He was quite sober at the time. He has but feeble grasping power with the left hand. He experiences sensations like "pins and needles" in the thumb only. The left hand and wrist are cold and dry, and do not get warm and perspire like the other hand. The tongue is clean; the appetite good; the bowels open. He feels in good health.

℞ Quinæ disulphatis gra. ij; strychniæ gr. 1-20; acidi sulphurici diluti g.; aquæ ℥i. M. Fiat haustus ter die sumendus.

September 31st. On being galvanised, he soon became faint, but found immediate benefit in the arm. He seems to be a weakly nerved man.

℞ Ammoniæ sesquicarbonatis gra. v; tincturæ cinchonæ ℥i; spiritûs ætheris sulphurici compositi ℥ss; infusi cascarillæ ℥i. M. Fiat haustus ter die sumendus.

January 3rd, 1859. He had been galvanised three times: he can grasp much more strongly. There is much less numbness, but the wrist still feels weak. The mixture was continued; and he was ordered to take a scruple of saccharated carbonate of iron three times a day.

January 5th. He is further improved; the hand and wrist now get warm and perspire like the other. He ceased attendance.

[*To be continued.*]

St. Bartholomew's Hospital. An endeavour is now being made on the part of the treasurer of this admirable institution to convert the large gravelled airing ground forming the quadrangle of the hospital into a garden, for the benefit of the patients; the shrubs already planted appear to thrive very well.

A Course of Lectures
ON
URINE, URINARY DEPOSITS, AND CALCULI.

DELIVERED AT THE PATHOLOGICAL LABORATORY, DURING THE SESSION 1857-58.

BY
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Lecture I.

Note-Book; Conical Glasses for examining Urine; Quantity of Urine; Colour of Urine; Smell of Urine; Clearness or Turbidity; Consistence; Deposit; Specific Gravity; Methods of taking the Specific Gravity; Reaction; Acid Urine; Alkaline Urine, from the presence of Volatile or Fixed Alkali.

[*Concluded from page* 272.]

Specific Gravity. By ascertaining the specific gravity of a specimen of urine, we are enabled to form a rough estimate of the quantity of solid matter dissolved in the fluid; and, by measuring the entire quantity of urine passed in the twenty-four hours, we have data for judging approximately of the quantity of solid material removed from the organism in this secretion in twenty-four hours.

The specific gravity of healthy urine may be considered to be about 1015, and the quantity of solid matter passed in the twenty-four hours at from 800 to 1000 grains. It has been considered sufficient to calculate the quantity of solid matter from the specific gravity by multiplying the number over 1000 indicating the specific gravity, by about 2·5. The result will give an approximation to the quantity of solid matter in 1000 grains of urine. This calculation is by no means correct, and is useless in careful investigations. Its inexact nature is shown by the fact that three very different numbers have been proposed, namely, 2·58, 2·33, and 1·65. When it is considered how widely different the composition of the solid matter may be in various specimens of healthy urine, it is obvious that results obtained in this manner must often be very wide of the truth. Take, for example, *albumen* and *common salt*. A fluid containing 136·4 grains of the former in 1000 grains will have a specific gravity of 1030; while one containing only 80.0 grains of common salt in the same quantity will have a specific gravity of 1064. This clearly shows that any attempt to *calculate* the quantity of solid matter in an animal fluid cannot be very exact. In investigations, therefore, where any approach to accuracy is required, we must evaporate a given quantity of urine (1000 grains) to dryness, at a low even temperature, and weigh the solid matter. In practice, this operation takes some time; and physicians are compelled, as a general rule, to be content with taking the specific gravity. In many cases, the information gained by this simple operation is very important. Thus the urine may be not more than 1002 or 1003—a condition commonly met with in hysteria. A patient may be continually passing urine of specific gravity 1010 to 1012, which is commonly the case with albuminous urine passed by patients suffering from certain chronic kidney diseases. Urine containing a very large quantity of urea, so much that crystals of the nitrate of urea are formed upon the addition of nitric acid (*excess of urea*), usually reaches 1030 or a little higher; and, in cases of confirmed diabetes, where very large quantities of sugar constantly escape from the organism, the urine has a specific gravity of 1035-1040, or even higher.

Methods of taking the Specific Gravity. The specific gravity of a fluid is obtained most correctly by ascertaining the weight of equal bulks of the fluid to be examined and distilled water respectively. For this purpose, a small bottle, with a tubular stopper, holding exactly 1000 or 500 grains of distilled water, at a temperature of 60°, is the most convenient form of apparatus. All that is necessary is to fill the bottle carefully with the urine, wipe it dry, and then weigh it, after having counterpoised the bottle. The number of grains which the fluid weighs is the specific gravity in the case of the 1000-grain bottle, double the weight for the 500-grain bottle, four times the weight for a bottle holding 250 grains, and so on in like proportion.

This method, although perfectly exact, and readily per-

formed where a good balance is at hand, is nevertheless too tedious and troublesome for the practitioner in a general way, and, in the sick-wards, a much simpler, though less correct method, is usually resorted to. The specific gravity is obtained by a small hydrometer, usually termed a *urinometer*. The form of this instrument, and the mode of using it, are well known; but there are one or two points in its construction and management which it may be well for me to refer to. As sold, these instruments are often nearly useless, in consequence of the carelessness displayed in their manufacture. Out of twenty instruments, I have found several differing as much as ten degrees from each other. If the stem of many urinometers be examined, it will be found that all the degrees marked upon it are equal, which clearly ought not to be the case; for when fluids of low specific gravity are operated on, a very small portion of the stem remains above the surface of the liquid, while the reverse holds with respect to liquids of great density. In the latter case, there is, of course, a much greater weight of stem above the liquid, tending to force the instrument lower in the fluid than in the former. Allowance must also be made for the fact that the fluid becomes denser as we pass from the upper to the lower strata.* The tendency of the instrument to indicate a higher density than the real one renders it necessary that the degrees should decrease in length from the upper towards the lower part of the stem. The practitioner should carefully examine his urinometer, to see that there is this difference in the degrees; and, if not, it should be changed. I strongly recommend every one to test the urinometer by immersing it in fluids, the specific gravity of which has been ascertained by the bottle, or by a well made and previously corrected urinometer. If the degrees are incorrect, the observer can always bear in mind the amount of error, and allow for it in taking the specific gravity of different specimens of urine. The vessel which is employed for immersing the urinometer in should not be too narrow, in case the bulb should rub against the sides, when it becomes difficult to ascertain the real density. The diameter of the glass vessel should be rather more than a quarter of an inch over that of the widest part of the bulb of the urinometer. The glass delineated in Figure 1 is a very convenient form.

Another method of taking the specific gravity, which is sometimes followed, consists in having a number of small glass bulbs, with the density of the fluids in which they neither sink nor swim marked upon them. By placing one after another into the urine, one is found which remains just beneath the surface, and the number upon it indicates the specific gravity of the fluid.

Reaction. You may easily ascertain the reaction of urine by the use of litmus-paper, which is prepared by soaking a thin but firm smooth paper in an infusion of litmus. It is desirable not to use blotting paper, or any spongy form of paper, for this purpose. Urine, having an *acid* reaction, immediately reddens this blue paper. The *alkaline* reaction of urine is ascertained by the use of *reddened litmus-paper*, prepared by adding a very small quantity of dilute acid to the infusion of litmus. An alkali always restores the *blue* colour of this reddened paper. If no change occurs when the urine is tested with both kinds of paper, the reaction of the specimen is *neutral*.

Acid Urine. The cause of the acid reaction of urine is obscure, and probably is not always of the same nature. Sometimes the reaction may depend upon carbonic acid, which is present in greater or less proportion in all the animal fluids. In this case, the blue colour of the paper is restored by gently warming it after it has been changed by the acid. A fixed acid reaction may be due to the presence of an acid phosphate of soda—a salt which exhibits an acid reaction, without the presence of any free acid. This salt may be formed by the action of uric acid upon common rhombic phosphate of soda. If I add a little uric acid to this solution of common rhombic phosphate of soda, the mixture still exhibits the characteristic alkaline reaction of the salt; but now, when heat is applied, decomposition occurs; the uric acid disappears, and combines with one equivalent of the soda to form urate of soda; and an acid phosphate of soda is produced. The acid reaction of urine, however, cannot always be explained in this manner; and it is probable that traces of free organic acids are often present. Lehmann has found both free lactic and free hippuric acids in some specimens of urine. Lately, Hallwachs has shown that a large amount of hippuric acid salts exists in healthy human urine.

* This error has been corrected by Mr. Ackland, of Messrs. Horne and Thornthwaite's, where accurately graduated instruments may be obtained.

Many specimens of urine which are slightly acid when passed from the organism, become more strongly so after standing for some days, and crystals of uric acid are deposited. The acid reaction may remain for weeks or even months, but usually the acidity gradually diminishes, and the specimen at last becomes alkaline from the presence of carbonate of ammonia formed in consequence of the decomposition of the urea. The beautiful researches of Scherer have proved that the gradually increasing intensity of the acid reaction, and the deposition of uric acid, were due to a process resembling fermentation, which was excited by the presence of a small quantity of mucus.

The intensity of the acid reaction of urine in health is continually undergoing change at different periods of the day. Dr. Owen Rees and Dr. Bence Jones have made numerous highly interesting observations, which prove that the acidity of the urine alternates with that of the gastric juice. When the largest quantity of acid is being set free from the stomach, the acidity of the urine is at its minimum; and when the secretion of gastric juice is diminished, the urine exhibits a most strongly acid reaction. The urine passed just before each meal, or a long time after taking food, is intensely acid, while that which is secreted during the digestive process, for about three hours after a meal, is very slightly so, and in many instances it is decidedly alkaline. It is especially important to bear in mind the existence of these variations in the acidity of the urine in a state of health, and not to refer the intensely acid reaction of urine secreted while no food is taken, to a morbid process requiring the exhibition of large doses of alkalies (*On Animal Chemistry*, by H. Bence Jones, M.A., M.D., F.R.S.). Dr. Beneke has made upwards of one hundred experiments upon healthy and diseased persons without being able to confirm Dr. Bence Jones' observations. In only one case did he find the urine alkaline after meals. Sometimes the acidity was less, but this was not invariably the case. Nevertheless, he admits that the acidity of the whole amount of urine passed varied considerably, although he could not discover the cause. It seemed to be independent of the quantity passed, and was not affected by exercise or food (*Archiv des Vereins für gemeinschaftliche Arbeiten zur Förderung der wissenschaftlichen Heilkunde*, 1 Band. 3 Heft.). Vogel's researches confirm the former results, inasmuch as he found that urine passed during the night was more acid than that secreted during the digestive process.

The intensity of the acid reaction is readily determined by ascertaining how much of a graduated solution of carbonate of soda is required to neutralise the acid in a given quantity of urine.

Alkaline Urine. The alkaline reaction of a specimen of urine may be due to the existence of carbonate of ammonia, in which case the blue colour produced by testing it with reddened litmus is destroyed by the application of a gentle heat (*volatile alkali*); or it may depend upon the presence of an alkaline carbonate, as carbonate of soda, or a neutral salt having an alkaline reaction, like common phosphate of soda, in which cases the application of heat does not restore the red colour of the litmus paper (*fixed alkali*).

Volatile Alkali. The development of carbonate of ammonia in urine depends upon the decomposition of the urea by the action of the mucus or some animal matter, which acts the part of a ferment. In some diseases of the mucous membrane of the bladder, and in cases of paraplegia, where the muscular coat of the organ is paralysed, and consequently the secretion is retained for a long time, this change is very liable to occur, and gives rise to pain and great distress, which are much relieved by washing out the bladder thoroughly with tepid water. A mere trace of urine which has undergone this change is capable of exciting a similar decomposition in a very large quantity. It is important to notice that if pus be present in such urine, it becomes converted into a viscid glairy mass, which is removed from the bladder with the greatest difficulty. This action of the volatile alkali on the pus precisely accords with that which occurs if ordinary liquor potassæ be added to a specimen of pure pus out of the body. Pus thus rendered glairy, forming a viscid adhesive mass at the bottom of the vessel containing the urine, is usually called *mucus*, but, as I have said, it really consists of altered pus. If this action on the pus only occurs after the urine has left the bladder, it is unimportant, but when it occurs before its expulsion, it is always necessary to interfere, and if the change cannot be entirely prevented, owing to the existence of certain mechanical impediments to the escape of the urine, we must try to render the urine acid, and thus prevent its occurrence, by giving very large and frequently re-

peated doses of nitric acid, unless this treatment is contra-indicated by other symptoms, which I shall have occasion to refer to in a future lecture.

Whatever causes prolonged retention of the urine in the bladder, in the ureter, or pelvis of the kidney, will excite this change, and as a consequence, roughening and ulceration of the mucous membrane ensue, with the precipitation of phosphate of lime and ammoniaco-magnesian phosphate. More pus is formed, which effects the decomposition of the urea and aggravates the mischief already produced, and unless relief be afforded, complete disorganisation of the mucous membrane results. Volatile alkali is never detected in healthy urine.

Fixed alkali. Urine, however, often exhibits an alkaline reaction due to the presence of an alkali which is not volatile by heat, and this reaction is often to be met with in a state of health. When an alkaline carbonate is detected in the urine, it usually results from the decomposition of salts of certain organic acids in the organism. Salts of tartaric, racemic, citric, and under some circumstances, those of oxalic and acetic acids, become resolved into carbonates in their passage through the organism, just as by the influence of a red heat, they are converted into carbonates out of the body. The urine may always be rendered alkaline, and very quickly so, by giving such salts in sufficient quantity; and their administration is of great advantage in cases where benefit is likely to be derived from alkalies, especially where strong alkalies do not agree with the digestive organs. I believe that in many cases the alkali thus formed in the organism exerts a more beneficial influence than the exhibition of alkalies or their carbonates. The value of the juice of oranges and lemons in various conditions is to be attributed to this change.

If the alkaline reaction of the urine is due to the presence of carbonate of ammonia crystals of triple phosphate (*Illustrations*, pl. ix, fig. 1; xxi, figs. 1, 3), and a deposit of phosphate of lime in a granular state, or in the form of globules or minute dumb-bells will be present; if, on the other hand, it depends upon fixed alkali, only the latter deposit without the crystals will be detected.

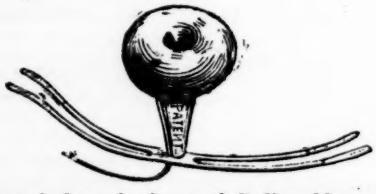
Before resorting to a minute examination of a specimen of urine, it is important to ascertain the *quantity* passed in twenty-four hours, to notice its *colour*, *smell*, *consistence*, *clearness* or *turbidity*, and the presence or absence of a *deposit*, and to ascertain its *specific gravity* and *reaction*.

In the next lecture, I propose to allude to the characters of the organic *constituents of healthy urine*, which are not volatile at ordinary temperatures, but which are completely destroyed by exposure to a red heat.

Inventions and Appliances
IN
MEDICINE AND SURGERY.

BOURJEAURD'S PATENT MUSHROOM OR PYRAMIDAL PESSARY.

A new pessary, which has been patented by Mr. Bourjeaurd, is shown in the annexed woodcut.



The pessary is formed of smooth India-rubber, and is, after being introduced into the vagina, inflated by a tube to such an extent as may be necessary. When the apparatus is properly distended, the neck of the uterus rests on its summit. The depression seen towards the upper part of the figure represents the commencement of a cylindrical canal, which is continued through the stem, and through which any discharges may escape. The apparatus is secured by elastic bands, which may be fastened to a narrow abdominal belt. This apparatus seems well calculated to fulfil the objects of a pessary; and two of its advantages are, the possibility of regulating its size, and the non-production of irritation.

LETTERS AND COMMUNICATIONS.

Letters or communications for the Journal should be addressed to Dr. Wynter, Coleherne Court, Old Brompton, S.W.

Letters regarding the business department of the Journal, and corrected proofs, should be sent to 37, Great Queen Street, Lincoln's Inn Fields, W.C.

British Medical Journal.

SATURDAY, APRIL 16th, 1859.

DRINKING FOUNTAINS.

It certainly is passing strange, that just in proportion as we recede further from the primitive type of living in this country, and boast our cooperative strength in great towns, so we neglect some of the first wants of life. The shepherd or the husbandman is enabled to quench his thirst at every gushing hill stream or pebbly brook he meets; the villager is always plentifully supplied with the pure element in his mossy well, and the smallest country town boasts its public pump in the market-place, where water can be had for the drawing. Alas! how stands the case in large cities? Of old, we had our public conduits in the great metropolis, which were possibly pure enough, as the water was often brought from distant streams in pipes; now these conduits, if they exist at all, exist in the form of parish pumps, which derive their streams, not from the far-off thyme-fields, but from the surface-water of a great city, flavoured in all cases with the matter of our drains, and perfumed with the escaped essences of our gas-pipes. The water of one of the favourite city pumps owes its sparkle to the nitrates it receives from the decomposing bodies in a neighbouring churchyard!

When the cholera comes, we meet the grim monster more than half way. During his last visit, the inhabitants of Broad Street and the Golden Square district toasted his advent in the water of their favourite pump; and lo! in three days they were decimated in consequence.

There is plenty of water, it is true; huge pipes ramify in every street, but not for the poor, who, like the Ancient Mariner, see around them

> "Water, water every where,
> But not a drop to drink."

How the poor have gone on so long without any adequate supply of so necessary an article, even for drinking purposes, passes our comprehension. Perhaps the explanation is, that they have been taught to drink beer and gin; and, as for water for their ablutions—why, as a matter of course, they go dirty.

A great want, however, is sure to be remedied sooner or later; and we rejoice to find that a movement has set in, which promises to supply to the poorer denizens of cities the privileges the peasant enjoys of quaffing without stint the pure element. It is scarcely two years since some humane individual, noticing the eagerness with which crowds collected to drink at the public pumps in hot weather, conceived the idea of a public fountain, to be supplied from a comparatively pure source. No sooner was this simple note struck, than its waves of vibration rapidly spread through the country. No fewer than two hundred and fifty public drinking fountains have

sprung up since that time; and it is quite clear that, the experiment having proved successful, they will in a few years be numbered, not by hundreds, but by thousands.

London is, however, we regret do say, far behind other great towns of the empire. There is, we believe, but *one* fountain as yet in actual work, although there are many in course of erection. The meeting held at Willis's Rooms on Tuesday proves, however, that we are not far behind in the important movement; and when such leaders as the Earl of Shaftesbury and Lord John Russell identify themselves with it, we may be pretty sure that it will be well carried out. It is estimated that this large metropolis will require at least four hundred drinking fountains; and, as it is seen that it will not do to depend upon such soulless personages as parochial authorities to maintain them, it has been wisely determined to form an association for their maintenance as well as construction. We have heard a great deal about temperance societies; but we predict that this association will do more for temperance than all the wordy orators that have trodden platforms, or all the tons of ill written tracts that have been levelled at the heads of gin-drinkers.

The formation of the Association was thus moved by the Earl of Shaftesbury:

"That whereas the erection in the metropolis of public drinking fountains yielding pure cold water would confer a boon on all classes, and especially contribute to the health and temperance of the poor, an association be formed for erecting and promoting the erection of and maintaining such fountains in the metropolis, to be styled the Metropolitan Free Drinking Fountain Association, and that contributions be received for the purposes of the association."

Having made this good commencement, the promoters of the meeting were determined to go yet further. The man with money in his pocket can afford to get his cooled water or lemonade at will; nay, we find that ices can now be obtained at a penny: but the proposition is, to give cool water for nothing at all! The Earl of Albemarle moved

"That no fountain be erected, promoted, or maintained by the association which shall not be so constructed as to ensure, by filters or other suitable means, the perfect purity and coolness of the water, as far as practicable under existing circumstances."

The Earl of Carlisle thought that means should be devised for providing constant coolness. If the association can only do this, Mr, Gough may as well think of packing up for America; and half the publicans will be ruined, during the hot weather, at least. We are not quite sanguine, however, as to the means of adding the luxury of coolness to the waters of these fountains. If the supply were drawn from deep wells, there would be less difficulty; but, as it is to come from the pipes of the different companies, we do not exactly see how the thing is to be done.

We trust, however, with Lord Carlisle, that the supply will be *continuous*. This is a matter of the greatest importance, and one which, we think, has not been sufficiently insisted on by the metropolitan officers of health. If the public fountains can obtain a constant supply, we may hope to find our houses accommodated with the living streams, fresh and fresh; and then, in all probability, when leaden cisterns are banished, we shall get rid of a multitude of obscure diseases, which we firmly believe to arise from the poison of lead being introduced into the system by our drinking water.

We trust that the erection of fountains for drinking purposes only precedes by a short time the erection of fountains for filling vessels at. The poor want water in their homes for cooking and washing; and how they get it present, we are at a loss to know. Why should we not combine all the needs of the poor as regards water in these new fountains? and why should they not be ornamented as we find them in the smallest villages on the continent, and so constructed that man and beast may drink, and vessels may be filled from them? Merely to erect drinking fountains is, in our opinion, to do only half the work required; and we trust that the original idea will so develope itself, that water for any purpose shall be publicly obtainable by the poor.

THE WEEK.

On Saturday last, Dr. Robert Mortimer Glover, lately one of the physicians to the Royal Free Hospital, and well known in the profession as the author of several works of much merit, died under circumstances of a very distressing nature. From the account of the inquest which was held, and from other information which has come to us through a reliable source, it seems that Dr. Glover had for some time past been residing in the house of Mr. W. M. Rochfort, of Kensington Park Road, who is described in the newspapers as a "chemist," but who, we have been informed, has been practising medicine without a diploma, under the shield of Dr. Glover's name. The deceased had been for some time in great pecuniary destitution, although often aided by the benevolence of his professional friends; and had unfortunately addicted himself to habits of intoxication. Within the last few weeks, he married a patient who had escaped from Colney Hatch Asylum. After living at an hotel for about a week on five pounds, they were separated—the bride being recaptured by the officers of the asylum. On the evening of Friday, April 8th, Mr. Gant, one of the surgeons to the Royal Free Hospital, called on Dr. Glover. During their conversation, the latter made frequent visits to an adjoining apartment; and, after some time, he suddenly fell back, breathing stertorously, and apparently intoxicated. As his condition was alarming, Mr. Gant called in the aid of Mr. Rochfort; and they applied friction, hot flannels, etc., without effect, until midnight, when Mr. Gant left him. On the following day, although Dr. Glover remained in the same state, no aid was called in from the neighbouring practitioners; but a messenger was dispatched for Dr. Risdon Bennett of Finsbury Square. Not being able to attend, Dr. Bennett sent a note to Dr. Cormack, who had formerly been an intimate acquaintance of Dr. Glover, requesting him to act in his stead. The temporary absence of Dr. Cormack, however, prevented him from visiting Dr. Glover until the evening, several hours after being summoned; when he found that he had been dead some minutes. In the meantime, Mr. Hopton, a surgeon, accidentally called on Dr. Glover; and, finding his friend in a desperate condition, he at once administered an emetic, which had the effect of rousing him for a time. This, it seems, was the first attempt made to empty the stomach: and we must say, that the neglect of the use of the stomach-pump when Dr. Glover was seized with alarming symptoms on

Friday evening, was a grievous fault of omission. At the inquest, which was held on Wednesday last, Mr. Rochfort said he had previously seen the deceased in a partially insensible state from taking large doses of opium; and he had also known him to take large doses of chloroform—at least, he (deceased) said that he did so. Dr. Glover had told witness that he was obliged to take opium and stimulants, because of his having suffered severely from dysentery while in the East. He never said anything about suicide, and witness believed that he was of a different disposition than to commit suicide. The evidence of Mr. Gant went to show that deceased had taken an overdose of chloroform. The coroner (Mr. Wakley) concurred in this opinion; and the jury, after some deliberation, recorded "That the deceased died from the mortal effects of his taking an excessive quantity of chloroform as an intoxicating agent, and not with the view of destroying life, or of doing himself personal injury." Dr. Glover's latest publication was an analysis of the Medical Act of 1858; and, just before his death, a paper by him, on the application of town sewage to agriculture, appeared in the *Lancet*.

On Monday last, a number of gentlemen, who had undergone the second examination at the Royal College of Surgeons under the new regulations, were admitted Members of the College. Nearly three hundred gentlemen have already passed their first examination in anatomy and physiology. It is also the intention of the Council to enforce the following regulations relating to the preliminary examination of candidates for the diploma of Member of the College.

"Candidates for the diploma of Member of the College, who shall commence their professional education on or after the 1st of January, 1861, be required to produce one or other of the following certificates:—

"1. Of graduation in Arts at a recognised University.

"2. Of an examination for matriculation, or such other examination as shall, in either case from time to time, be sanctioned by the Council of the College; at a University in the United Kingdom; at a recognised University in the colonies; or at a recognised foreign University.

"3. Of the Oxford or Cambridge Middle Class Examinations, either Junior or Senior.

"4. Of the preliminary examination for the Fellowship of the College.

"Candidates who shall not be able to produce one or other of the foregoing certificates, shall be required to pass an examination in English, classics, and mathematics; to be instituted at the College, and to be conducted by the Board of Examiners of the Royal College of Preceptors, under the direction and supervision of the Council of the College, and to include such subjects as may hereafter be determined by the Council. And the special or particular subjects of examination shall be published in each preceding year; and the examination from time to time shall be added to or increased, as the opportunities of education may be improved."

In reference to the subscription for a statue to Hunter, which, we are glad to hear, progresses in a satisfactory manner, we would direct the attention of our associates to the letter of Mr. Webber, published at p. 316. The principle which our correspondent seeks to inculcate is, we think, sound—that the memorial of Hunter should not consist entirely of perishable and inert marble. Mr. Webber promises to develope his plan next week: when he does so, we shall return to the subject.

Association Intelligence.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
Birmingham and Midland Counties. [General Meeting.]	Hen and Chickens Hotel, Birmingham.	Thursday, April 21st, 6 P.M.
Bath and Bristol. [General Meeting.]	York House, Bath.	Thurs., April 21st, 7 P.M.

SOUTH-EASTERN BRANCH:

SOCIAL AND SCIENTIFIC MEETINGS OF THE MEMBERS RESIDENT IN ROCHESTER, MAIDSTONE, GRAVESEND, DARTFORD, AND THEIR VICINITIES.

A social and scientific meeting of members of the South-Eastern Branch resident in Rochester, Maidstone, Gravesend, Dartford, and their vicinities, will be held on

Friday, April 29th, 1859, at 3.30, at the Town Hall, Dartford.

The members resident in this district will be gratified by the attendance and assistance of any of the members of the British Medical Association.

James Dulvey, *Honorary Secretary.*

Brompton, Chatham.

ADMISSION OF MEMBERS, AND PAYMENT OF SUBSCRIPTIONS.

The General Secretary of the British Medical Association begs to call attention to the Laws regarding the Admission of Members, and the Payment of their Subscriptions.

"*Admission of Members.* Any qualified medical practitioner, not disqualified by any bye-law, who shall be recommended as eligible by any *three* members, shall be admitted a member at any time by the Committee of Council, or by the Council of any Branch."

"*Subscriptions.* The subscription to the Association shall be One Guinea annually; and each member, on paying his subscription, shall be entitled to receive the publications of the Association for the current year. The subscription shall date from the 1st January in each year, and shall be considered as due unless notice of withdrawal be given in writing to the Secretary on or before the 25th of December previous."

Either of the following modes of payment may be adopted:—

1. Payment by Post-Office Order to the Treasurer (Sir C. Hastings, M.D., Worcester), or to the undersigned.

2. Payment to the Secretary of the Branch to which the member belongs.

3. Members residing in the Metropolis and vicinity can make their payments through the publisher of the British Medical Journal, Mr. Thomas John Honeyman, 37, Great Queen Street, Lincoln's Inn Fields, W.C.

Philip H. Williams, M.D., *General Secretary.*

Worcester, December 1858.

MEDICAL REGISTRATION.

PUBLICATION OF THE REGISTER.

We have been requested by Dr. Hawkins to give notice that all persons who desire their names to appear in the Register printed for 1859, should apply to be registered before the 1st day of May, 1859.

REGISTRATION FEES: NOTICE.

The Medical Registrar presents his compliments to the Editor of the British Medical Journal, and would be obliged if the attention of members of the profession could be drawn to an advertisement sent herewith, which shews the registration fees payable in the respective cases of persons qualified before or not till after the 1st of January, 1859; and also the fee payable for any *additional* qualification—*i. e.*, either obtained since January 1st by a person previously qualified, or added to the qualifications of a person already registered.

THE MEDICAL COUNCIL.

BRANCH COUNCIL FOR IRELAND.

Monday, March 14th, 1859.

Present:—Dr. Leet, in the Chair; Dr. Stokes, Dr. Smith, Dr. Williams, Dr. Apjohn, and Dr. Corrigan; Dr. Maunsell, *Registrar*.

The minutes of last meeting were approved and signed.

Copies of the regulations of the University of Dublin in relation to the conferring of Degrees in Medicine and Surgery, supplied by the Registrar of the University, were laid before the Council.

Read—Letter and Memorial from the Manchester District Medical Registration Association, requesting that Degrees obtained from Foreign and Colonial Universities and Colleges may not be registered.

Ordered—That portfolios for holding the minutes of the several Councils be provided for each Councillor.

An application for Registration, under the 46th Clause of the Medical Act, was considered, and a special order was made to register James Wilkin, of Blayney, as an Assistant-Surgeon in the Army.

Resolved—That the Registrar be directed to write to such practitioners resident in Ireland, as have not yet placed their names on the Register, to acquaint them that they cannot be included in the forthcoming publication of the General Register, unless they be returned to the Registrar for England before the end of April.

Resolved unanimously—That in reply to a resolution of the Executive Committee of the 7th instant, in reference to abbreviations proposed by that Committee to be used in the publication of the General Register, the Branch Council for Ireland desire again to express their opinion that the Executive Committee were merely empowered by the resolution of the General Council of the 27th November, 1858, to superintend the publication of the Register, and were not authorised to alter, in any way, its form—the power to do so being vested in the General Council only. The Branch Council also desire to observe, that the allusion in the resolution referred to, to abbreviations appended to some names in the Register sent from Ireland, should not have been made without its being accompanied by the letter of the Registrar for Ireland explaining the circumstance.

R. C. Williams.

Reports of Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, March 22nd, 1859.

F. C. Skey, Esq., President, in the Chair.

THE FORMS AND STAGES OF BRIGHT'S DISEASE OF THE KIDNEY, WITH ESPECIAL REFERENCE TO DIAGNOSIS AND PROGNOSIS.

BY GEORGE JOHNSON, M.D.

The question of the relationship between the various conditions of the kidney commonly included under the term "Bright's Disease," was one of practical interest and importance. The theory of the oneness of Bright's disease was inconsistent with the clinical history and the morbid anatomy of the kidney in its various conditions. A large Bright's kidney usually remained large to the end, and a contracted Bright's kidney had not passed through a previous stage of enlargement. The chief points of distinction between the large white Bright's kidney and the contracted kidney, were the following:—1. The urine secreted by the large kidney is less abundant, of higher density, more constantly and copiously albuminous, and contains small waxy casts with or without oil, but not the granular casts which are thrown off from the tubes of the contracting kidney. 2. The minute anatomy of the two kidneys is different. In the contracting kidney, the gland cells become disintegrated and washed away, leaving the tubes denuded. In the large white kidney, the cells for the most part remained attached to the basement membrane, and undergo changes varying from a slight granular opacity to a complete oily degeneration, or they may at length become replaced by an albuminous or a fibrinous material which fills and obstructs the tubes. 3. There are few exceptions to the rule, that patients who die with a large Bright's kidney have had dropsy. In only two out of twenty-six fatal cases, in the author's experience, had dropsy been wanting at some period of the patient's history; whereas, of thirty-three fatal cases of contracted kidney, there had been dropsy in only fourteen, and in most of these cases the dropsy was very slight and partial. If all the contracted Bright's kidneys passed through a previous stage of enlargement, it was difficult to understand how the majority of those patients who reached this final stage of renal degeneration could escape the dropsy, which, in a greater or less degree, troubled nearly all those who died in what is by some writers assumed to be an earlier stage of the same disease. The rule was that a large Bright's kidney remained so to the end, and that a contracted kidney had not previously been enlarged. But there were exceptions to this rule. There were cases of Bright's disease in which the kidneys, having become enlarged, subsequently underwent a process of contraction in a greater or less degree. These cases, however, were so exceptional in many of their most important features, that they afforded a remarkable confirmation of the doctrine, that in ordinary cases the contracted Bright's kidney was not an advanced stage of a previously enlarged kidney, but the result of a distinct series of morbid changes. The cases in which contraction of the kidney had followed upon enlargement might be divided into three classes:—1. Cases in which the weight and size of the kidney were found to be increased after death; yet in the cortical portion of the gland there were unquestionable indications of commencing atrophy and contraction. The author had met with six cases of this kind, and showed a drawing of the kidney from one case. The gland was large, pale, and waxy; but the cortical portion decidedly wasted. 2. Cases where the contraction of a pale, waxy kidney had proceeded farther, so that the size and weight were reduced below the average of the healthy gland. 3. Cases in which a kidney, having become enlarged and fatty, had subsequently contracted; the fat granulations being still visible in the atrophied kidney. In fourteen years the author had met with only five examples of contracted fat kidney. In two of these cases the period of transition from a large fat kidney to a contracting kidney was clearly indicated by the microscopic characters of the urine. The large waxy and granular casts were observed to take the place of the small waxy and oily casts which had been present during the earlier periods of the disease. One of these cases was under observation for a period of ten years. The chief points of distinction between a kidney wasted by the chronic desquamative disease and one contracted after waxy enlargement were referred to, and illustrated by drawings of the two forms of disease.

Dr. Quain remembered the time when there was hardly any subject before the profession which was under a greater cloud. The mere presence of albumen in the urine was regarded as something formidable in its tendency, and the progress of the disease was almost a mystery; but the researches of Dr. Johnson and others had thrown as much light on the subject as the researches of Laennec with the stethoscope had thrown on the diseases of the lungs and heart. The nature of the deposit indicated the origin and probable progress of the disease, and even seemed to point to its treatment. It was true there were some difficulties still standing in the way, but as time advanced there could be no doubt these would diminish.

Dr. Basham thought the great merit of the paper consisted in the refutation of the pathological theory, emanating from the German school, of the oneness of Bright's disease. The author had constantly endeavoured to show that there were several morbid processes engaged in producing the different forms of renal disease that go by the name of Bright. Those who had paid attention to the disease must be familiar with the appearances described by Dr. Johnson, and aware of the distinctive characteristics that marked the large, flabby, white kidney from the granular, fatty, waxy, small kidney. He could have wished that the author had dwelt more particularly on the fact that the large white kidney was frequently associated with the acute form of the disease, whereas those forms of disease that extend over many years were more frequently found connected with the fatty and waxy kidney.

Dr. G. Johnson agreed to some extent with Dr. Basham that the large pale kidney was usually connected with the acute form of the disease. Where chronic disease followed upon an acute attack it was almost always a large, pale, flabby kidney. He did not know of an instance in which a very small contracted kidney commenced in an acute attack. It was not always,

however, that large, pale kidneys existed in acute cases. One of the cases which he had detailed, where the kidney was contracted, was of ten years duration. If the patient had died at the end of nine years he believed a large pale kidney would have been found. In a considerable portion of cases of chronic enlarged Bright's kidney, the origin was latent, and there was no acute stage so far as one could ascertain. One could not explain the difference in the size by the comparative duration of the cases.

Editor's Letter Box.

CASE OF MEDICAL ETIQUETTE.

Letter from T. Webb, Esq.

Sir,—My attention has been directed to a communication signed "Medicus", in the Journal of March 26th; to your remarks on that communication; and also to replies elicited by it from members of the British Medical Association, in this week's Journal. I am the person representing A in the letter of "Medicus"; and, if you will permit me, I will relate very briefly the circumstances to which that letter refers.

I was called at night, on the 1st ult., to the scene of an accident. When I arrived, I found one person, the butler of Mrs. Levett, of Wicknor Lodge, dead; the other, her coachman, suffering from a scalp-wound and other injuries. Having dressed the wounds of the injured man, I sent him home in a carriage, promising, at his request, to see him on the following morning. Mr. Miller, a surgeon in practice here, hearing of the accident by chance, drove to Wicknor Lodge, and awaited the arrival of my patient. This he did without solicitation. He removed my dressings, knowing that I had applied them; and called upon me as he returned home, to say that he had done so, and that he should consider the case his. This was a proceeding so foreign and unusual to me, that I should, had not Mr. Miller speedily left my house, have administered to him what I consider he very much deserved—a good horse-whipping. I ought to mention, that he is Mrs. Levett's medical attendant; but, as the servants pay their own surgeon, and I was summoned, not on Mr. Miller's account, but on my own, to the accident, I consider that he had no claim whatever to the case; and even had he been called, the dignified way would have been to meet me in consultation on the following morning, without interfering, except in my presence, with my appliances.

This is my own view of the case, and the one entertained by every member of the profession to whom I have mentioned the subject; and, as it seems to be the view taken by your correspondents, and in part by yourself, I venture to submit, although not a member, the whole particulars to the judgment of the Association; merely remarking that, in a practice now extending over more than thirty years, I have held it as a golden maxim, rather to lose a patient than to be untrue to my profession. I am, etc., Thomas Webb.

Barton-under-Needwood, Burton-on-Trent, April 4th, 1859.

[In commenting on this case in the Journal of March 26th, we assumed, from an expression in the letter of "Medicus", that B (Mr. Miller) was the medical attendant of the whole family in which the injured man resided. It appears, however, from Mr. Webb's statement, that he is the medical attendant of the mistress only; and that the servants are free to choose their own surgeons. Under these circumstances, we must say that the conduct of Mr. Miller appears to have been very unjustifiable. Editor.]

GRATUITOUS MEDICAL SERVICES.

Sir,—Having, a few days since, received a circular from that excellent institution, the Royal Medical Benevolent College, soliciting my aid, I was grieved to learn from it the great extent of misery, want, and woe, not confined to the negligent and improvident, that prevail in our profession. The cause of all this painful distress is an ignoble spirit of competition, under the cloak of charity, by the wealthier portion of our body. Is it with a pure spirit of charity, which "seeketh not her own" profit, that so many F.R.C.S.'s and M.D.'s canvass with heavy expense any gratuitous appointment that may fall in a public medical charity? I think not. It is a puffing stepping-stone to practice; and, from this cause, I think that they ought to do something for their poorer brethren.

Let it be taken for granted that an average of these favoured appointments yields such officer an extra hundred a year to his practice, I would then suggest, as a test, that each officer should give to the Medical College fifty pounds a year. This would produce a good income, enabling it to extend its benevolent wings for the comfort and solace of the aged, and instruction to the young at a still more reduced rate. If those fortunate brethren would do this, the public whom they are so eager to serve would not suffer, nor could any branch of the profession complain; especially if the governors would take a hint from that excellent letter of "Delta", in the Journal of February 26th, as to their punctual attendance.

In the Journal of April 2nd, you notice the trite remarks of Mr. Sandford, "of the obscure position which the profession occupied in public estimation, as a result of being generous to others, before being just to themselves." In private practice, gratuitous physic and advice are rarely appreciated; and why should it be otherwise in a public act? In fact, we are considered as medical errand boys, to be ready to receive *orders* from any one. *If paid*, it is an act of grace, rather than that of honest grateful duty.

The breaches of etiquette and honour can never be kept much in check until some Association has the power, "as in the legal and clerical" professions, of legally disqualifying the offending party, or some other punishment.

Between pseudo-charities and the druggist's counter, the incomes of established practices have of late years been much reduced. I am, etc., Sperans.

April 4th, 1859.

HOW TO TREAT THE ENCOURAGERS OF QUACKERY.

Letter from Frederick J. Brown, M.D.

Sir,—Allow me to send you the copy of a letter addressed by me to the wife of a grocer in this town that had visited a patient of mine, formerly her servant. I think that if respectable people were told the plain truth more frequently than they now are, it would be better for all parties.

I am, etc., Fredk. J. Brown.

Chatham, Kent, April 5th, 1859.

[Copy.] "Chatham, March 30th, 1859.

"Madam,—At my visit to L. K., to-day, I was shown a quack pamphlet by Congreve, which you had left at the house. I am aware of the quack-loving sentiments of the public, and I am prepared to expect anything in the way of delusion that can be conceived; but I regret that any person occupying a respectable position in life should encourage the sin and folly of quackery.

"I feel the more sorry because in this case the poor girl is in the last stage of consumption, and is drawing near her end; and I consider it to be cruel to buoy her up by false hopes.

"Excuse me, madam, for plain speaking.

"If you sympathise with this girl, you can usefully show your kind feeling by visiting her and sending her articles of diet. I would name oranges as being a kind of fruit of which the girl is fond. "I am, madam, your obedient servant,

"Frederick J. Brown, M.D.

"To Mrs. ——."

A SUITABLE MONUMENT TO A SCIENTIFIC MAN.

Letter from W. Webber, Esq.

Sir,—It will, I think, be conceded that the time has fully arrived for determining the sort of monument best suited to continue throughout all ages as a record of the unwearied industry, the vast researches, the gigantic achievements, and the not less *unselfish* labours of John Hunter; and to do lasting honour to the universally venerated name of that excellent and truly great man, than whom science can boast no nobler son, suffering humanity no better friend, society no greater benefactor. He manned the life-boat launched by the renowned Harvey. He was the "Magnus Apollo" of the intuitive John Abernethy; the pioneer of the far-famed Astley Cooper; and, as the pilot of the past, the guide of the present, and the helm of the future, he, in death, still lives, the idol of European surgeons, as Harvey must ever live the pride of all physicians. What more precious gift can man bestow upon his fellow-man than the knowledge of how all "live, and move, and

have their being"; thereby raising the minds of his fellow-creatures to a proper and just conception of the infinite wisdom and beneficence of their Omnipotent Creator!

Marble, be the *sculpture* of it as costly as it may, is but the indicative feature of disintegrating and self-decaying time; and therefore, succumbing in its turn with other emblems of mortality, is not calculated to do more than bear witness for awhile that, by the Royal College of Surgeons, the body of John Hunter (found through the assiduous searchings of the scientific Mr. Buckland and his fit coadjutor, the humble-minded but very intellectual Professor Quekett, Curator of the Hunterian Museum) was removed from St. Martin's crypt, and "buried in peace" in the Abbey of the City of Westminster, where John Hunter lived, worked diligently and vigilantly, to the great benefit of his species, the honour of his country—and died like a devoted sentry at his post.

Poor in purse, preeminent in the services he had performed, before he had attained the full term of years allotted "to man that perisheth", he bowed to the will of his great Lord and Master, yielding up the talent and the time committed to his trust "with usury"; bequeathing to posterity an inestimable legacy, and a brilliant and most profitable example. With the memory of such a man we have now to deal. Lest future generations, for whom we are trustees, cast upon us the reproach, which, though evil, would be just, that "the *good*" now afforded by the reinterment of his remains in so deserved and time-honoured a resting place, *does not live after* us, but that it has been, as is too oft the case, "interred with his bones", let us bestir ourselves, one and all—the medical profession greatly profited, the clergy much aided, and with them the laity more largely benefited—to commemorate, in a way rational and grateful, honourable to ourselves, advantageous to those now young in years, and to those that are yet to come, that "his name liveth for evermore", till science shall with Time have passed into Eternity.

Mr. Charles Hawkins, in a letter which has lately appeared in the *Times*, has very ably advocated a course which was early hinted at by the worthy and zealous Treasurer of the Hunterian Fund, Mr. South, and others who agree with us, as probably most others do, that it would be far otherwise than wise to convert profitable gold into perishable marble. Mr. Hawkins's recommendation to his medical brethren is not less sound than opportune. Those who have not done so will do well to contribute, without delay, to the fund for perpetuating the advantages they have in their turn derived from the discoveries of Hunter, and they will do still better if they invite the co-operation of the public in their locality, who may have the means; and who have by medical science been more extensively benefited.

John Hunter, by the diffusion of the great knowledge he had acquired and recorded of frame and function, of form and feature, and of the insight into the divers diseases, various accidents, and the way of combating the numerous "ills to which flesh is heir," laid the foundation for the very valuable superstructure which has been wrought by his meritorious followers, of whom there exist in the present day not a few. The great alleviation of suffering, the extraordinary cures daily recorded in the medical and other journals, effected by the members of the profession, (the heavy costs and trying penalties of whose education must not be forgotten), and the statistics of the multitudinous Life Assurance Offices, show how considerably human nature has been advantaged; how much the mortal span has been extended by the more recent discoveries and improvements in the healing art. The members of the profession need not, therefore, feel scrupulous, or be afraid of incurring odium, by inviting the public to aid them in enlarging the opportunity and the means of promoting the growth of a science so essential to the welfare of all. On the contrary, the public will have just reason to complain if we do not give them the chance of making an investment so safe and profitable to themselves, so due to those who have to follow them.

What incalculable good might be accomplished by the ample fund which might thus be got together by a tribute from all, a tax upon none. As the widow's mite was acceptable, so will the smallest sum be useful; therefore let no one feel himself or herself shut out. I will undertake to bring at least £100 into the Treasury, and I would say unto others, follow ye likewise in the same track to the utmost of your ability.

Next week, with your permission, I will briefly lay before your readers the scheme which has occurred to me for placing our profession in the status it ought to occupy, as conservators of the public weal.

I am, etc.,

William Webber.

Onslow Square, April 11th, 1859.

Parliamentary Intelligence.

HOUSE OF LORDS.—Friday, April 8th, 1859.

RECREATION GROUNDS BILL.

An amendment was made in this measure, and the report was received.

Monday, April 11th.

RECREATION GROUNDS BILL.

This Bill was read a third time, and passed.

Tuesday, April 12th.

MEDICAL ACT (1858) AMENDMENT BILL.

This Bill came before the House upon the consideration of the Commons' reasons for disagreeing with one of their Lordships' amendments.

Lord Wenslеydale moved that the reasons of the Commons be agreed with.

The Earl of Carnarvon recommended their Lordships not to insist on the amendment which had been objected to by the Commons; though he thought it might probably be necessary to bring in a Bill next year in reference to an objection which might arise under the present measure.

The motion was agreed to.

HOUSE OF COMMONS.—Thursday, April 7th, 1859.

NAVAL MEDICAL OFFICERS.

Sir J. Pakington said, in answer to a question put by Mr. Cogan, for Captain O'Connell, as to when the warrant would issue placing the naval medical officers on a similar footing with those of the army, that he was unable to name the precise day, and that he could only repeat what he said on a former occasion, that the subject was under his consideration, and that it was his intention to comply substantially with the recommendations made to him on the subject.

MEDICAL ACT (1858) AMENDMENT BILL.

The Lords' amendments to this Bill were considered; and some of them were adopted, while others were rejected.

NAVAL MEDICAL SUPPLEMENTAL FUND SOCIETY ANNUITIES, etc., ACT CONTINUANCE BILL.

This Bill was read a second time.

Friday, April 8th.

NAVAL MEDICAL SUPPLEMENTAL FUND SOCIETY ANNUITIES, etc., ACT CONTINUANCE BILL.

This Bill passed through Committee.

Monday, April 11th.

NAVAL MEDICAL SUPPLEMENTAL FUND SOCIETY ANNUITIES, etc., ACT CONTINUANCE BILL.

On the motion for the third reading of this Bill, in reply to a question from Sir H. Willoughby,

Mr. Secretary Estcourt said this was merely a continuance Bill, and he could not conceive of any persons as objecting to the objects which it was designed to promote.

Mr. Slaney concurred in the opinion that the operation of the Bill might be expected to be beneficial.

Mr. Bowyer said that as this was a Bill referring to the navy, he hoped he should be in order in calling attention to a subject which he wished to bring before the House, relating to Greenwich Hospital. There were now a great number of vacancies in that establishment, which was sufficient to show that it was not popular with the navy, and that it did not give the satisfaction desirable to those for whom it was intended. He would not enter into matters of detail; but he wished to ask the First Lord of the Admiralty what measures the Government were prepared to take to place that noble establishment, which ought to be to them a subject of pride, on a better footing.

Sir J. Pakington said the honourable gentleman had given him no notice of the question, and, therefore, he could only give a general answer; and, while he agreed that the cha-

racter of Greenwich Hospital was a matter of the highest importance, he would take care to institute an inquiry.

The Bill was then read a third time, and passed.

Medical News.

BIRTHS, MARRIAGES, DEATHS, AND APPOINTMENTS.

** In these lists, an asterisk is prefixed to the names of Members of the Association.*

BIRTHS.

Baker. On April 11th, at Vorley's Villas, Upper Holloway, the wife of Thomas J. Baker, Esq., Surgeon, of a daughter, stillborn.

Briscoe. On April 9th, at the Royal Arsenal, Woolwich, the wife of Henry Briscoe, M.D., Royal Artillery, of a daughter.

Burke. On April 9th, at 31, Molesworth Street, Dublin, the wife of W. M. Burke, M.D., of a son.

Longton. On April 8th, at the Priory, Southport, the wife of E. J. Longton, M.D., of a daughter.

Marsden. On April 11th, at 2a, Hyde Park Place, the wife of Alexander Marsden, Esq., Surgeon, of a son.

Stallard. On April 5th, at 12, Welbeck Street, Cavendish Square, the wife of *J. H. Stallard, M.D., of a son, who survived only a few hours.

MARRIAGES.

Birch—Hamilton. Birch, George, Esq., to Catherine Anna, eldest daughter of the late Joseph Hamilton, M.D., of Queenstown, Canada, at Bath, on April 7th.

Brambley—O'Shaughnessy. Brambley, Alexander Howe, Esq., to Sarah Mary, daughter of Sir W. B. O'Shaughnessy, M.D., at Roorkhee, Bengal, on February 21st.

Cranswick—Tubbs. Cranswick, William Noad, Esq., Surgeon, of Camberwell New Road, to Elizabeth Brown, youngest daughter of the late Joseph Tubbs, Esq., of Herringswell Hall, Suffolk, at Herringswell, on April 7th.

Eves—Redmond. Eves, Augustus, M.D., of Cheltenham, to Matilda Anne, youngest daughter of the late Samuel Redmond, Esq., of Thornhill, county Antrim, at Cheltenham, on April 6th.

Hele—Shute. Hele, N. Fenwick, Esq., Surgeon, to Harriet, youngest daughter of Major Shute, Shaldon, Devon, at Ringmore, Devon, on April 6th.

O'Leary—Morley. O'Leary, Thomas C., M.B., 68th Light Infantry, to Mary Evelyn Pryce, youngest daughter of the late Arthur T. Morley, Esq., of Newtown Hall, Montgomeryshire, at the Roman Catholic and St. Jude's Churches, Portsea, on April 5th.

Sharman—Dulley. Sharman, Matthew Reid, Esq., solicitor, of Wellingborough, to Mary Elizabeth, second daughter of *Benjamin Dulley, Esq., Surgeon, of the same place, on April 7th.

DEATHS.

*Allen, George, Esq., Surgeon, at St. George's, Somerset, aged 63, on March 25th.

Duke, Walter, Esq., Surgeon, at Hastings, aged 45, on April 4th.

Duncan, Henry, M.D., at Calais, on April 6th.

Glover, Robert Mortimer, M.D., at 1, Kensington Park Road, on April 9th.

Hairby, James, M.D., at Hundleby, Lincolnshire, aged 62, on April 3rd.

Hodson. On April 9th, at Bishop's Stortford, aged 43, Betsey, wife of *Charles F. Hodson, Esq., Surgeon.

Percivall, William, Assistant-Surgeon Royal Navy, in the harbour of Rio de Janeiro, on board Her Majesty's ship *Madagascar*, from yellow fever, aged 24, on March 4th.

Taylor, Joseph, Esq., Surgeon, at 4, Vere Street, Cavendish Square, aged 76, on April 7th.

Taylor. On April 9th, at Colchester, aged 3 years and 8 months, Eliza, child of J. R. Taylor, M.D., Deputy Inspector-General of Hospitals.

Thompson. On April 3rd, at Southsea, aged 75, Benham, widow of the late William Thompson, Esq., Surgeon Royal Navy.

PASS LISTS.

Royal College of Surgeons. At a meeting of the Court of Examiners, on Friday evening, April 8th,

Waller, Edmund, of Her Majesty's ship *Wellesley*, passed his examination for Naval Surgeon. This gentleman had previously been admitted a member of the College: his diploma bearing date July 11th, 1853.

The following gentlemen, having undergone the final or pass examinations in Pathology and Surgery, were admitted members of the College at a meeting of the Court of Examiners, on April 11th; viz.—

St. Bartholomew's Hospital.

Adams, James, Addington Place, Camberwell
Buck, Henry John, Norwich
Cann, Thomas, Seaton, Devon
Clare, Henry Ashlin, Holland Cottage, Kennington
Dowker, Frederick Woodcock, Laysthorpe, Yorkshire
Gregory, Bradley, Exeter
Lloyd, David, Carmarthen
May, John Henry Square, Plymouth
Nunn, John Robert, Bedford
Parker, Robert, Churton, Chester
Stone, Thomas Westcott Gale, Lincoln's Inn Fields
Woods, Francis Hollis, Northampton

St. Thomas's Hospital.

Drake, Charles Henry, Kingsclere, Hants
Grabham, Charles, Lonsdale Square, Islington
Griffith, Alfred Leete, Eden Place, Old Kent Road
Grose, Samuel, Boston, Lincolnshire

University College Hospital.

Miles, Rees, Merthyr Tydvil
Roberts, John, Crug, Carnarvon
Thompson, John, St. Mary's, York

Manchester School.

Bancroft, Joseph, Stretford, near Manchester
Foulkes, Frederick, Swinton, Manchester

Guy's Hospital.

Brooks, Bransby, Henley on-Thames

King's College.

Evans, George Maule, Queen's Road West, Regent's Park

St. George's Hospital, and Grosvenor Place School.

Bucknill, Ebenezer, Stanley Street, Chelsea

Westminster Hospital.

Blennerhassett, Richard Henry, Tralee, county Kerry, Ireland

New Fellows. The following members of the College, having been elected Fellows at previous meetings of the Council, were admtited as such on April 14th:—

Benfield, Thomas Warburton, Leicester: diploma of membership dated January 27th, 1843
Budd, Herbert Walker, Worcester: May 29th, 1835
Burke, John Page, Staff-Surgeon, Royal Navy: June 29th, 1840
Cantrell, William, Wirksworth, Derbyshire: February 24th, 1843
Evans, William, Marine Terrace, Herne Bay: May 6, 1839
Godfrey, Thomas, Herne Bay: October 8th, 1841
Impey, Elisha George Halhead, A.M., H.M. Bombay Army: August 16th, 1839
Ingoldsby, Frederick, Finsbury Square: November 5, 1841
Mann, George Smyth, H.M. Bengal Army: April 26, 1839
Owen, Harvey Kimpton, Clapham Road: June 14th, 1839
Risk, James George, Beaumaris, North Wales: June 24th, 1842
Rose, Caleb, Suffolk Place, Pall Mall: May 13th, 1842
Ryan, Michael, Newcastle, Staffordshire, October 8th, 1841
Sheppard, Edgar, Hanover Terrace, Regent's Park: June 13th, 1842
Stovell, Matthew, H.M. Bombay Army: Sept. 5th, 1828
Thompson, Moses Davenport, Stalybridge: May 25, 1838
Vine, George John, Hadlow, Kent: July 1st, 1839
Whitfield, Frederick, St. James's Terrace, Harrow Road: January 7th, 1825
Williams, James, Mount Pleasant, Brecon: June 18, 1841
Wood, John Bland, Broughton, Manchester: February 5th, 1836

At the same meeting of the Council—

Sandels, W. J., of Holyhead, was admitted *ad eundem* a member of the College.

University of Cambridge. At a Congregation held on April 8th, the following degree was conferred:—

Doctor of Medicine.

Burd, Edward, Caius

Apothecaries' Hall. Members admitted on Thursday, April 7th, 1859:—

Bancroft, Joseph, Stretford, near Manchester
Bellringer, George Hext, Penzance, Cornwall
Bett, Robert Longstaff, Howell, Lincolnshire
Bone, William, Calcutta
Fawkner, John, Manchester
Godrich, Henry, Brompton
Ray, Sidney Keyworth, Milton, near Sittingbourne, Kent
Scott, Henry Thomas, Henry's Place, Old Kent Road
Watling, Charles Wyat, Tredington, Shipton-on-Stour
Williams, William, Kidwelly, Carmarthenshire

The following gentlemen also, on the same day, passed their first examination:—

Freeman, William, Maldon, Essex
Huntley, Robert Elliott, Howdon, Northumberland
Paine, William, Lopsham

HEALTH OF LONDON:—WEEK ENDING APRIL 9TH, 1859.

[*From the Registrar-General's Report.*]

In the week ending Saturday, the total deaths registered in London were 1201, and they exhibit an increase of 134 on those of the preceding week. In the ten years 1849-58, the average number of deaths in the weeks corresponding with last week was 1151; but as the deaths in the present return occurred in a population which has increased, these can only be compared with the average raised in proportion to the increase; namely, with 1266. The figures show that the deaths of last week were less by 65 than the number which would have occurred under the average rate of mortality for the first week of April.

The deaths from small-pox rose last week to 22, of which number nearly half occurred in the east districts; those from measles declined to 15. Fifty-eight cases of scarlatina and 13 of diphtheria were fatal. Whooping-cough carried off 61 children, five of these in the sub-district of Somers Town. At 14, Catherine Street, Hoxton New Town, three children have died from scarlatina since the 3rd instant, and two others have been attacked by the disease. The medical attendant considers that the severity of the complaint in this instance is due to the bad drainage of the locality. A tailor, aged 79 years, at 5, Back Road, St. George-in-the-East, was "found dead from want of proper nourishment."

Last week, the births of 923 boys and 914 girls, in all 1837 children, were registered in London. In the ten corresponding weeks of the years 1849-58, the average number was 1556.

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·831 in. The barometrical readings underwent very small variations during the first four days; afterwards, the lowest was 29·41 in., the highest 29·52 in. The mean temperature of the week was 56·3°, which is 11·1° above the average of the same week in 43 years (as determined by Mr. Glaisher). The mean daily temperature was above the average throughout the week; and on Wednesday and Thursday this excess was 15·7° and 17·5° respectively. The thermometer fell to its lowest point 43·5° on Tuesday, and rose to its highest 79° on the following day. The entire range was therefore 35·5°. The mean daily range was 21·8°. The range on Wednesday was so much as 33·5°. The difference between the mean dew-point temperature and air temperature was 9·1°. The wind blew on every day from the south-west. The rain measured was 0·10 in.

In the thirteen weeks that ended April 2nd, 16,147 deaths were registered in London, of which 8,160, or rather more than half, occurred under 20 years of age. The quarter was healthier than the same period of last year, and much healthier than that of 1855. The mean temperature of the first quarter in the present year was unusually high, viz., 43·3°; in that of 1858, it was 38°; in 1855, 34·1°. But though the recent mortality has been comparatively not great, scarlatina (including diphtheria) has contributed a remarkably heavy proportion, the deaths from it having been 1167, while in four corresponding quarters they ranged only from 353 to 705. Small-pox has lately increased, for whereas the deaths from it in the two winter quarters of 1857-8 were 60 and 41, in the last quarter they were 201. Of these 201, eight occurred in the west districts, 38 in the north, 43 in the central, 83 in the east, and 29 in the south. The parts chiefly infested were Finsbury, Shoreditch, and Bethnal Green.

Of 525 violent deaths, 436 occurred by accident or negligence, 25 by murder or manslaughter, 64 by suicide.

THE JOHN HUNTER STATUE.

At a meeting of the committee for the erection of a statue of Hunter, held on March 29th, Mr. J. H. Green, the President of the Royal College of Surgeons of England, delivered an interesting address, which has been printed in the form of a pamphlet. He observed that after the lapse of more than sixty years, no public memorial existed to record the grateful acknowledgment, by the profession, of the merits of this illustrious physiologist and surgeon. His claims to the gratitude of his country were indeed manifested by the incomparable museum deposited within the walls of the college. This monument of his genius was the result of years of ever renewed labour, both of mind and body, during hours which he snatched from the harassing duties of professional practice; as well as of a liberal expenditure of professional gains. At his death, all that he could leave as a provision for his family, was only whatever the Museum, which had absorbed all his means, might produce; and, by the tardy munificence of Parliament, it fortunately became the property of the nation, at the inadequate cost of £15,000. John Hunter might be justly regarded as the founder of a science of comparative physiology. It was the peculiar merit of Hunter that, instead of wasting his time on hypotheses and conjectures with regard to the nature and essence of living forces, he had raised his mind to the apprehension of life as a law in aid of a science of vital dyamics, and as the means of giving scientific unity to the facts of living nature. Proofs of the pregnancy of the ideas which animated Hunter's labours, were afforded by the imposing array of facts contained in the Museum. It was impossible to repress admiration of the founder, who, at the sacrifice of fortune and present enjoyment to the cause of science, laboured with undaunted perseverance, amid the sneers of his professional brethren, in the execution of his great work. It was impossible not to appreciate the judgment he displayed in culling the choicest in illustrative facts; it was impossible, in examining his preparatory labours for the description and explanation of the collection, to withhold unqualified praise of the genius which thus brought together this epitome of animated nature in the unity of a scientific idea!

It would be worse than idle to say that his great predecessors, from the immortal Aristotle to Haller, Daubenton, Pallas, and others, among whom the great Harvey might proudly be pointed to, had not largely contributed to our knowledge of animated being: it would be base and purposeless to deny the well-earned merits of his contemporaries and successors: and, without any attempt to detract from the fame of the illustrious Cuvier, who first successfully accomplished a scientific classification of the animal kingdom, based on natural affinities disclosed by comparative anatomy, for Hunter might justly be claimed the praise of originality and priority in the scientific construction of comparative physiology,—of having first presented the facts of comparative anatomy in and as a connected scheme of graduated development, and of having thus furnished the ground of the science of comparative or universal physiology, and with it the well-founded and not unconfirmed hope of making every part of the organised creation give intelligibility to every other part, and all to the crown and consummation of all, the human frame. That, however, he had also more largely contributed to the wealth of facts that form the capital of the science, than had been hitherto admitted—nay, that he had anticipated much of recent discovery in morphology, embryology, and palæontology, could no longer be doubted since the publication of the admirable preface to Hunter's papers on the Animal Œconomy, by Professor Owen.

Hunter's practical and comprehensive mind also led him to connect his scientific labours with his professional pursuits, and with the task of establishing surgery on scientific principles. In his pathology, by contemplating life as an agency working

under the control of law, he remained true to the principle already secured in his physiology; and it enabled him to regard the living body in disease, no less than in health, as a living whole and an organic unity. He not only recognised the living body as a constitution, by virtue of which it forms a system of interdependent parts and of balanced forces mutually reacting and combining to one end; but he also raised into notice the existence of these powers in various degrees of intensity and of relative subordination. From this vantage ground he was led to determine the pathological significance of the terms "susceptibility," "disposition," "irritability," "hereditary tendencies," and "sympathy." The latter term was intended to express the community of feeling and action, which preserve the bond of interdependence in all the parts and actions of the living body in their conspiration to one organic whole. As many of the actions excited by sympathy are for the purpose of effecting processes which tend to the repair of local injuries and to the removal of disease, the principle which he established supplied an intelligible meaning to the so-called "*Vis medicatrix naturæ*." Mr. Green referred to Hunter's work on the *Fundamental Principles of Inflammation* as a most masterly performance of inductive inquiry, unprecedented in the special science to which it is a contribution. In his investigation of the inflamatory process, it was impossible sufficiently to admire the almost wearisome collation of facts by which he removes, point by point, all the separating obscurity, the morbid from the natural action of vessels, and brought them into luminous and intelligible connection. In his researches on ulceration, in connection with the functions of the absorbent vessels, he opened a new branch of science, and it was by his elucidation of the process of adhesion, or union by the first intention, that he principally conferred on operative surgery a scientific character. The knowledge of this mode of union in wounds, whether premeditated or accidental, had eminently contributed to rescue the surgeon's art from the *opprobrium* of unsuccessful operations, and to give simplicity and success to their after treatment.

Mr. Green here related two instances which had come under his notice, to show the slow appreciation of principles. One of the first operators of Paris, about thirty-five years ago, had excited Mr. Green's admiration by the extraordinary care with which he had, in an amputation, prepared the parts for the quick union of the stump, when, to his inexpressible surprise, he stuffed the wound with "charpie", and thus wilfully provoked a tedious suppuration At Berlin, in 1817, he saw a case in which one of the most eminent operators of Germany had tied the subclavian artery for an axillary aneurism. The patient appeared to be in a favourable state, but, for reasons which the operator did not explain, he resorted in a few days to the antiquated and barbarous practice of opening the sac by an extensive incision, and of scooping out its contents. The patient's life was the forfeit of this gross violation of the principle which Hunter had established.

But the appeal to philosophical principles was the cause of Hunter's novel doctrines being a closed volume to the greater number of his contemporaries, and to the mere routiniers of the profession. But, although the principles, implied or expressed in his writings and lectures, subjected him to the scorn or neglect of those less imbued with the spirit of philosophy, the results of those principles, practically exemplified and verified as they were by facts, gradually forced themselves on the conviction of the profession, and became the very groundwork of all professional study, teaching, and progress. Nor ought it to be forgotten, in accounting for the revolution in surgery which he effected, that, in the lifetime of Hunter, the better minds of the surgical profession were attracted to his lecture-room; and, though perhaps at no time exceeding thirty in number, that Home, Cline, Lynn, Carlisle, Abernethy, Astley Cooper, Coleman, and others, were his enthusiastic disciples, and became the enlightened teachers of Hunterian principles in the schools of the metropolis.

If, then, Hunter might be justly regarded as the founder of a science of comparative physiology; if, in first establishing, on the basis of physiology, a rational pathology, he achieved the union of the healing art with universal science; and if he thereby raised surgery into a liberal profession, and produced a beneficial reform in surgical art, by which its power and light in ministering to the ills of man have been incalculably increased; a confident appeal might be made to the liberality of the profession, and of all lovers of science, for the means of raising a memorial of their gratitude and reverence for this great man, who might rightfully take his place in the foremost rank of the benefactors of mankind.

Extraordinary Range of Temperature. Mr. E. J. Lowe, of Highfield House, in the *Times* of April 7th, remarks, that the unprecedented range of temperature which has occurred within the space of a single week is worthy of record. On the 1st of April, the temperature fell to 21·8° in the air, and to 20° on the grass; while on the 7th of April, it rose to 78·0° in the shade, being a range of 56·2°. The hottest temperature before recorded here for April, is April 6th, 1859—viz., 75·8°. In 1848 and 1852, it rose to 75·5°; and in 1854, to 74·8°. During the last sixty-five years, the observations taken at the Royal Society, and reduced by Mr. Glaisher, show that in 1707, the temperature in April rose to 77·0°; in 1841, to 76·5°; in 1848, to 75·0°; and in 1844, to 74·9°—the thermometer to-day rising 1·0° above this amount. The coldest temperature before recorded at Highfield for April is 1855—viz., 22·6°; and 1849, 24·3°. The Royal Society's observations give 27·0° as the coldest for April, and this occurred in the three years 1099, 1808, and 1847. In the present year the temperature has fallen 5·2° below the amount. From the inland position of the Highfield House Observatory, the temperature rises higher and falls lower than in the neighbourhood of London; nevertheless, the temperature has been 0·8° lower, and 2·5° higher than ever before recorded.

Medical Officers of Unions. Some papers have been printed by order of Parliament, on the motion of Mr. Cobbett, M.P., relative to complaints made in December 1857, and February 1858, against Dr. Joseph Arthur, medical officer of the Deptford district. The complaint was, that he neglected the poor, and it was first made to the Greenwich Board of Guardians in December 1857, by the Rev. C. F. S. Money, of St. John's, Upper Lewisham Road. At the beginning of 1858, an official inquiry into the charge against Dr. Arthur was instituted by Mr. H. B. Farnall, Poor-Law Inspector, in the boardroom of the Greenwich Workhouse. His report to the Poor-Law Board appears to exculpate Dr. Arthur from the charge of negligence, but he expresses his strong disaproval of the language of the learned doctor's letter to the Rev. Mr. Money, of the 2nd of May, 1857, and thinks that the Board, in acquitting him of negligence, should take notice of the matter. The doctor about this time came into collision with the Rev. J. P. Courtenay, curate of St. John's, who complains of being "subjected to his insulting and violent conduct" while visiting two sick persons. This complaint was also the subject of inquiry by Mr. Farnall. On this occasion he advised the Poor-Law Board that Dr. Arthur's conduct towards the Rev. Mr. Courtenay, while in the performance of his clerical duties, was "most unwarrantable;" and, referring to the former inquiry, he felt that he must recommend the Board to call for Dr. Arthur's resignation. The Board accordingly did so on the 17th of March 1858. The doctor hereupon appealed to the local board of guardians, promising in future to give the curate, Mr. Courtenay, no further cause of complaint, and expressing regret for the use of certain words in his letter to Mr. Money. The Poor-Law Board, however (20th of April), refused to retract their previous resolution, and intimated that Dr. Arthur, unless he resigned within a week, would be summarily "removed." Dr. Arthur accordingly retired from office; but this was the signal for a "memorial" from twelve highly respectable medical practitioners of the district to the Poor-Law Board, expressive of deep regret at the resignation by their friend, Dr. Joseph Arthur, of an office which "he had held for the last seventeen years and a half with so much credit and honour to himself and advantage to the sick poor." This is dated the 23rd of April, and on the 7th of May the guardians of St. Paul and St. Nicholas, Deptford, solicited an interview with the Poor Law Board for the purpose of urging the reinstatement of Dr. Arthur as medical officer of the Deptford district. Meanwhile, a reconciliation was effected between the doctor and his clerical coadjutors, much to the honour of both parties. The Poor-Law Board, notwithstanding this subsidence of the troubled waters, and the strong representations of the guardians and local physicians and surgeons in favour of Dr. Arthur, still found (19th of May) no reason to "vary their views" with respect to the case. The following day, however, the Board was officially apprized of the reelection of Dr. Arthur to the office of medical officer of the Upper Deptford district, subject to the Board's approval. The Board remained inflexible, declining to sanction the reelection, and on the 1st of July Dr. Arthur appealed to the Secretary of State, earnestly courting inquiry before an impartial tribunal, and feeling that gross injustice had been done to him. Here the paper terminates, whence it is to be inferred that Mr. Walpole, then at the Home Office, declined to

interfere. Dr. Arthur, in one of his letters, gives some hints on the subject of clerical "visitations" from house to house that may be quoted with advantage for the instruction of those parish priests who lack discretion rather than zeal. He writes as follows:—"On Mr. Courtenay (the curate) retiring (from a house) both mother and daughter assured me they never invited him to attend. Now, there is no greater fallacy than to imagine that the sick poor like these visitors; on the contrary, they dread them; when the visitor makes his appearance in the sick room the patient thinks it ominous, and so begins to suspect that he is booked for a speedy passage to the other world. In fact, he looks upon the visitor as the harbinger of death, an idea which his appearance and sepulchral notes in every way tend to establish. The hospital physician allows no intrusion on his cases without his consent. The private physician forbids the visits even of the nearest relatives when life is endangered by noise or excitement. The district physician owes precisely the same regard and attention to the poor; and they may rest assured that, as long as I continue their physician, I shall submit to no intrusion or ungenerous treatment towards them." (*Times.*)

The Approaching General Election. Requisitions, of which the following is a copy, are in course of signature in different parts of the city and liberty of Westminster:—

"We, the undersigned electors of Westminster, having ascertained that your health is sufficiently restored to enable you to resume your duties in the House of Commons, and believing that your principles relative to the duration of Parliament, the extension of the franchise, the vote by ballot, and the abolition of church rates, are in accordance with our own views and opinions, earnestly invite you to become a candidate for the representation of Westminster at the election about to take place. Should you consent, it will be our object to promote your return by every legitimate means in our power, without requiring you to take any personal part beyond appearing on the hustings on the day of nomination. We shall ourselves record our votes in your favour without putting you to expense; and we shall solicit our brother electors to act in a similar manner, feeling assured that we best secure the independent action of our representatives in Parliament by electing them free from any other cost or expenditure than the legal charges of the returning officer.

"To Thomas Wakley, Esq., Coroner for Middlesex, and
lately M.P. for the Borough of Finsbury."

It is said, also, that Dr. Michell, whom the profession will remember for his abuse of Jenner and his discovery, is a candidate for the representation of Bodmin; and that Dr. J. W. Noble, of Leicester, has resigned his office of mayor of that town, in order to obtain the honour of representing it in parliament.

The Hunter Statue. A meeting has been held in Liverpool, at which it was resolved that subscription lists should be at once opened. In Jersey, Dr. Fixott, a Fellow of the Royal College of Surgeons, is acting as honorary secretary. A list of subscriptions will shortly be published.

The Royal Society. Sir Benjamin Brodie, as President of the Royal Society, received a very large party of eminent scientific and literary persons on Saturday evening, in Burlington House.

Harveian Society. At the meeting of the Harveian Society, on Thursday evening, April 21st, a paper will be read by Dr. W. Camps, "On certain perverted cerebral or psychical acts antecedent to mania."

TO CORRESPONDENTS.

NOTICE.—Dr. Wynter will feel obliged if the Associates will address all Post Office Orders in payment of Subscriptions, to the Publisher, Mr. Thomas John Honeyman, 37, Great Queen Street, Lincoln's Inn Fields, London, W.C., "Bloomsbury Branch"; and he would also feel obliged by their sending all communications respecting the non-receipt of the Journal, to the same address; as both these matters are out of the province of the Editor.

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Members should remember that corrections for the current week's Journal should not arrive later than Wednesday.

Anonymous Correspondents should always enclose their names to the Editor; not for publication, but in token of good faith. No attention can be paid to communications not thus authenticated.

An Old Member. A full report of the prosecution of the editorial staff of *L'Union Médicale* by the Parisian homœopaths has been published in French. The title is *La Médecine traditionelle et l'Homœopathie; procès intenté au Journal L'Union Médicale, par douze Homœopathes: precédé des Mémoires et des Notes diverses publiées par les Parties au Cours des Débats, et recueillis par* J. Sabbatier. It is published at the office of L'Union Médicale, 56, Faubourg Montmartre, Paris, in the form of an octavo volume of nearly 300 pages, at a price of 3 fr. 50 cent., exclusive of postage. Our correspondent could obtain it through one of the foreign booksellers in London.

Mr. Jonathan Harrison. The work to which you refer is Mr. G. M. Humphry's *Treatise on the Human Skeleton*. The price is £1 8s. An advertisement of the book appears in this day's Journal.

Communications have been received from:—Mr. G. M. Humphry; Dr. F. J. Brown; Mr. James Dulvey; An Old Member; Dr. Wm. Hinds; Dr. W. Addison; Mr. Thomas Webb; Mr. William Martin; Mr. Augustin Prichard; Dr. W. O. Markham; Dr. C. H. Jones; Dr. Lionel Beale; Dr. Turnbull; Dr. Jas. Russell; Mr. Higginbottom; Mr. W. Webber; Mr. Holmes; and Mr. T. M. Stone.

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